List of Archived Space Station Publications

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(Listed by category and alphabetically)

Biology and Biotechnology

Adaptation of Mouse Systems Physiology to Artificial Gravity via Centripetal Acceleration: Timing, Metabolism & Aging (**Joint Partial-gravity Rodent Research (JPG-RR)/ Mouse Habitat Unit-8 - Fuller**) — Kremsky I, Pergerson R, Justinen S, Stanbouly S, Willey JS, et al. Artificial gravity attenuates the transcriptomic response to spaceflight in the optic nerve and retina. *International Journal of Molecular Sciences*. 2024 November 9; 25(23): 12041. DOI: 10.3390/ijms252212041

Advanced Plant EXperiment-07 (**APEX-07**) — Rodriguez A, Barcenilla B B, Hall E, Kundel I, Meyers A D et al. Raman spectroscopy as a tool for assessing plant growth in space and on lunar regolith simulants. *npj Microgravity*. 2025 May 27; 11(1): 1–8. DOI: 10.1038/s41526-025-00479-8

Arthrospira Gene Expression and Mathematical Modelling on Cultures Grown in the International Space Station (**Arthrospira C**) — Fahrion J, Renaud C, Coninx I, Heylen W, Mastroleo F, et al. ARTHROSPIRA-C space flight experiment: Validation of biomass and oxygen production bioprocesses using ground model demonstrator system. *Acta Astronautica*. 2025 April; 229: 374-390. DOI: 10.1016/j.actaastro.2024.11.010

Asian Herb in Space — Nasir KH, Hisham SN, Ghani NF, Norfaizal M, Ghazalli NI, et al. Gene expression of microgravity germinated *Ocimum sanctum* L. on International Space Station and Japan experiment module. *International Journal of Agriculture and Environmental Research*. 2025 February 20; 11(01): 213–245. DOI: 10.22004/ag.econ.355577

Assessment of Nutritional Value and Growth Parameters of Space-grown Plants (**Plant Habitat-02**) — Hasenstein K H, Moinuddin S G, Berim A, Davin L B, Lewis N G. Glucosinolate and sugar profiles in space-grown radish. *Plants*. 2025 July 6; 14(13): 2063. DOI: 10.3390/plants14132063 *

Biomimetic Fabrication of Multi-Functional DNA-Inspired Nanomaterials via Controlled Self-assembly in Space (Ax-2) (**DNA Nanomaterial Therapeutics (Ax-2)**) — Yau A, Landolina M, Snow M, Mesci P, Williams B S et al. In space fabrication of Janus base nano matrix for improved assembly and bioactivity. *npj Microgravity*. 2025 July 2; 11(1): 32. DOI: 10.1038/s41526-025-00482-z

Characterization of Amyloid Formation Under Microgravity Environment: Toward Understanding the Mechanisms of Neurodegenerative Diseases (**Amyloid**) — Yagi-Utsumi M, Yanaka S, Burton-Smith RN, Song C, Ganser C, et al. Microgravity-assisted exploration of the conformational space of amyloid ß affected by Tottori-type familial mutation D7N. *ACS Chemical Neuroscience*. 2025 July 16; 16(14): 2682–2690. DOI: 10.1021/acschemneuro.5c00217

Determining the Efficacy of Bacteria Resistant Polymers in Microgravity (**Bacteria Resistant Polymers in Space**) — Shea A, Harvey K, Keeley A, Johnson H, Hansen N, et al. Payload design and evaluation of Staphylococcus epidermidis adhesion to nonfouling polyampholyte coatings onboard the International Space Station. *Molecules*. 2025 February 11; 30(4): 836. DOI: 10.3390/molecules30040836

Effect of the Space Environment on Fertility of Spermatogonial Stem Cells (**Sperm Stem Cells**) — Kanatsu-Shinohara M, Yamamoto T, Shiromoto Y, Morimoto H, Liu T, et al. Germline transmission of cryopreserved mouse spermatogonial stem cells maintained on the International Space Station. *Stem Cell Reports*. 2025 September 9; 20(9): 102602. DOI: 10.1016/j.stemcr.2025.102602 *

Effects of Spaceflight on Gastrointestinal Microbiota in Mice: Mechanisms and Impact on Multi-System Physiology, Systemic Therapy of NELL-1 for Osteoporosis, Genome and Epigenome Analysis of Circulating Nucleic Acid-based Liquid Biopsy, Human Exploration Research Opportunities - Differential Effects on Homozygous Twin Astronauts Associated with Differences in Exposure to Spaceflight Factors, Mouse Habitat Unit - 2 (**Rodent Research-7**, **Rodent Research-5**, **Cell-Free Epigenome**, **Twins Study**, **Mouse Epigenetics, GeneLAB**) — Cope H, Elsborg J, Demharter S, McDonald JT, Wernecke C, et al. Transcriptomics analysis reveals molecular alterations underpinning spaceflight dermatology. *Communications Medicine*. 2024 June 11; 4(1): 1-18. DOI: 10.1038/s43856-024-00532-9 *

Establishing In-Space Production of Stem Cell Therapies (**Stellar Stem Cells (Ax-2)**) — Mozneb M, Arzt M, Mesci P, Martin DM, Pohlman S, et al. Surface tension enables induced pluripotent stem cell culture in commercially available hardware during spaceflight. *npj Microgravity*. 2024 October 15; 10(1): 97. DOI: 10.1038/s41526-024-00435-y

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GeneLAB — Zhang G, Zhao L, Li Z, Sun Y. Integrated spaceflight transcriptomic analyses and simulated space experiments reveal key molecular features and functional changes driven by space stressors in space-flown C. elegans. *Life Sciences in Space Research*. 2025 February 1; 44: 10-22. DOI: 10.1016/j.lssr.2024.11.004

Generation of Cardiomyocytes from Human Induced Pluripotent Stem Cell-derived Cardiac Progenitors Expanded in Microgravity (**MVP Cell-03**) — Forghani P, Liu W, Wang Z, Ling Z, Takaesu F, et al. Spaceflight alters protein levels and gene expression associated with stress response and metabolic characteristics in human cardiac spheroids. *Biomaterials*. 2025 June; 317: 123080. DOI: 10.1016/j.biomaterials.2024.123080

Global Ecosystem Dynamics Investigation (**GEDI**) — Oliveira PV, Zhang X. Upper canopy and understory phenology of Brazilian Amazon forests seen by GEDI lasers. *Environmental Research Letters*. 2025 March 21; 20(4): 044015. DOI: 10.1088/1748-9326/adbfad

High Throughput Pan-omic Approaches to Study the Effect of Microgravity on Responses of Skin Endothelial Cells to Insult (**STL-MRMC**) — Chakraborty N, Cheema A, Gautam A, Donohue D, Hoke A et al. Gene-metabolite profile integration to understand the cause of spaceflight induced immunodeficiency. *npj Microgravity*. 2018 January 29; 4(1): 4. DOI: 10.1038/s41526-017-0038-4 *

Human Muscle Contraction Response in Microgravity (**Human Muscle-on-Chip**) — Parafati M, Thwin Z, Malany LK, Coen PM, Malany S. Microgravity accelerates skeletal muscle degeneration: Functional and transcriptomic insights from an ISS muscle lab-on-chip model. *Stem Cell Reports*. 2025 July 8; 20(7): 102550. DOI: 10.1016/j.stemcr.2025.102550

Identifying the Genetic Features Determining Individual Differences in the Resilience of Biological Objects to Long-term Spaceflight Factors Studies with the Fruit Fly *Drosophila melanogaster* (**Poligen (Polygene)**) — Ogneva IV, Gogichaeva KK, Zhdankina YS, Kotov OV. The administration of phospholipids with polyunsaturated fatty acids in the tail groups makes it possible to prevent the decrease of sperm motility of the fruit fly *Drosophila melanogaster* in the early period of readaptation after space flight. *Biofizika*. 2024 December 15; 69(6): 1206–1213. DOI: 10.31857/S0006302924060079†

International Caenorhabditis elegans Experiment First Flight-Cells (**ICE-First-Cells**) — Higashibata A, Higashitani N, Imamizo-Sato M, Hashizume T, Etheridge T, et al. Space flight induces reduction of paramyosin and troponin T: Proteomic analysis of space-flown Caenorhabditis elegans. *Current Biology*. 2013 August; 2(3): 262-271 *

International Space Station Internal Environments (**ISS Internal Environments**) — Bragina JV, Danilenkova LV, Kamysheva EA, Goncharova AA, Fedotov SA, et al. Behavioral changes in Drosophila males after travel to International Space Station. Part II. Larvae vs. Imago. *Acta Astronautica*. 2025 April; 229: 192–198. DOI: 10.1016/j.actaastro.2025.01.025

International Space Station Internal Environments (**ISS Internal Environments**) — Ichimura S, Yamashiki YA. Assessment of the physical and psychological aspect of the current life support system on the International Space Station for a sustainable space exploration. *Frontiers in Space Technologies*. 2025 January 14; 5: 15pp. DOI: 10.3389/frspt.2024.1461389

International Space Station Internal Environments (**ISS Internal Environments**) — Limero TF, Reese E, Wallace WT, Cheng PF, Trowbridge J. Results from the air quality monitor (gas chromatograph-differential mobility spectrometer) experiment on board the international space station. *International Journal for Ion Mobility Spectrometry*. 2012 July 18; 15(3): 189-198. DOI: 10.1007/s12127-012-0107-z *

International Space Station Internal Environments (**ISS Internal Environments**) — Luthra A, Ravi A, Coe JV. The Dust Library: Enhanced Infrared Spectra of Individual Respirable Dust Particles. *45th International Conference on Environmental Systems*, Bellevue, Washington; 2015 July 12. 6 pp.

International Space Station Internal Environments (**ISS Internal Environments**) — Polikarpov NA, Shashkovskii SG, Goldshtein IA, Novikova ND, Deshevaya EA, et al. [The use of impulse plasma-optical ultraviolet technologies for ensuring microbial safety of the space station environment]. *Aviakosmicheskaia i Ekologicheskaia Meditsina (Aerospace and Environmental Medicine*). 2010 January-February; 44(1): 40-46. *

International Space Station Internal Environments (**ISS Internal Environments**) — Wilson L, Nielsen K, Caspaso-Vilanueva S, O'Brien T, Hefner LA, et al. Characterization of virulence-related phenotypes of Candida parapsilosis and Rhodotorula mucilaginosa isolated from the International Space Station (ISS). *Life Sciences in Space Research*. 2025 May; 45: 16-24. DOI: 10.1016/j.lssr.2025.01.002

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International Space Station-Microbial Observatory of Pathogenic Viruses, Bacteria, and Fungi (ISS-MOP) Project (**Microbial Tracking-2**) — Hill M S, Minnis V, Simpson A C, Salas M C, Bone D et al. Genomic description of *Microbacterium mcarthurae* sp. nov., a bacterium collected from the International Space Station that exhibits unique antimicrobial-resistant and virulent phenotype. *mSystems*. 2025 May 20; 10(6): e00537-25. DOI: 10.1128/msystems.00537-25 *

International Space Station-Microbial Observatory of Pathogenic Viruses, Bacteria, and Fungi (ISS-MOP) Project (**Microbial Tracking-2**) — Szydlowski LM, Bulbul AA, Simpson AC, Kaya DE, Singh NK, et al. Adaptation to space conditions of novel bacterial species isolated from the International Space Station revealed by functional gene annotations and comparative genome analysis. *Microbiome*. 2024 October 4; 12(1): DOI: 10.1186/s40168-024-01916-8

International Space Station Summary of Research Performed (ISS Summary of Research) — du Moulin G C, Sands I, Snow M, Chen Y, et al. Technical and regulatory opportunities and challenges for cell and gene therapies in low earth orbit: a status report. *Cell & Gene Therapy Insights*. 2025 June 6; 11(4): 545–577. DOI: 10.18609/cgti.2025.067 *

Japan Aerospace Exploration Agency Protein Crystallization Growth (**JAXA PCG**) — Michigami M, Notsu K, Kamo M, Hirokawa T, Kinoshita T, et al. Structural insights into molecular-targeting helix–loop–helix peptide against vascular endothelial growth factor-A. *Biochemical and Biophysical Research Communications*. 2024 November 19; 734: 150749. DOI: 10.1016/j.bbrc.2024.150749

JAXA Mouse Habitat Unit-5 — Sato K, Kouyama N, Akatsuka S, Motooka Y, Wang Q et al. Lunar life drives jawbone formation. *Journal of Dental Sciences*. 2025 October; 20(4): 2399-2406. DOI: 10.1016/j.jds.2025.03.032

JAXA Mouse Habitat Unit Technical Verification (**Mouse Habitat Unit-4**, **Mouse Habitat Unit-5**) — Ikeda Y, Funamoto M, Yamamoto M, Ly-Nguyen HD, Imanishi M et al. Changes of iron dynamics in the duodenum and bone marrow under partial gravity condition in mice. *Life Sciences in Space Research*. 2025 August 1; 46: 10–17. DOI: 10.1016/j.lssr.2025.03.007

JAXA Mouse Habitat Unit Technical Verification, JAXA Mouse Habitat Unit-5, Transcriptome analysis and germ-cell development analysis of mice in the space (**Mouse Habitat Unit-4** (**Mouse Habitat Verification**), **Mouse Habitat Unit – 5**, **Mouse Habitat Unit -1 (MHU-1/ Mouse Epigenetics**)) — Okamura Y, Gochi K, Ishikawa T, Hayashi T, Fuseya S, et al. Impact of microgravity and lunar gravity on murine skeletal and immune systems during space travel. *Scientific Reports*. 2024 November 20; 14(1): 28774. DOI: 10.1038/s41598-024-79315-0

Magnetic 3D Bioprinter — Komlev V, Parfenov VA, Karalkin PA, Petrov SV, Pereira FD, et al. Space manufacturing of a bone tissue destined for patients on Earth?. *Biomedical Technology*. 2025 February; 9: 100064. DOI: 10.1016/j.bmt.2024.10.004

Mice Drawer System (**MDS**) — Rizzo A M, Murgia G, Lentini A, Zava S, Ferranti F et al. Hypergravity influences mouse erythrocyte membrane lipid composition and antioxidant potential. *Acta Astronautica*. 2025 September; 234: 99–105. DOI: 10.1016/j.actaastro.2025.04.061

Microbial Tracking Payload Series (**Microbial Observatory-1**) — Pearl S, Kumar H, Vijayakumar S, Basu S, Ramaiah S, et al. The evolution of superbugs in space: a genomic perspective on pathogens in the International Space Station environment. *Journal of Genetic Engineering & Biotechnology*. 2025 September; 23(3):100536. DOI: 10.1016/j.jgeb.2025.100536

Microbial Tracking Payload Series (**Microbial Observatory-1**) — Salido RA, Zhao HN, McDonald D, Mannochio-Russo H, Zuffa S, et al. The International Space Station has a unique and extreme microbial and chemical environment driven by use patterns. *Cell*. 2025 April 3; 188(7): 2022–2041. DOI: 10.1016/j.cell.2025.01.039

Microbial Tracking Payload Series (**Microbial Observatory-1**) — Szydlowski LM, Bulbul AA, Simpson AC, Kaya DE, Singh NK, et al. Adaptation to space conditions of novel bacterial species isolated from the International Space Station revealed by functional gene annotations and comparative genome analysis. *Microbiome*. 2024 October 4; 12(1): DOI: 10.1186/s40168-024-01916-8

Microgravity Expanded Stem Cells — Huang P, Piatkowski BT, Cherukuri Y, Asmann YW, Zubair AC. Impact of spaceflight on gene expression in cultured human mesenchymal stem/stromal cells. *PLOS ONE*. 2025 March 13; 20(3): e0315285. DOI: 10.1371/journal.pone.0315285

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Molecular Biology of Plant Development in the Space Flight Environment (**CARA**) — Zhou M, Ferl RJ, Paul AL. Light has a principal role in the Arabidopsis transcriptomic response to the spaceflight environment. *npj Microgravity*. 2024 August 6; 10(1): 82. DOI: 10.1038/s41526-024-00417-0 *

Multidisciplinary Approach to the Analysis of the Functional Alterations Induced by Microgravity in Human Satellite Cells, and Study of Possible Countermeasures (MYOGRAVITY) — Di Filippo ES, Chiappalupi S, Falone S, Dolo V, Amicarelli F. The MyoGravity project to study real microgravity effects on human muscle precursor cells and tissue, et al. *npj Microgravity*. 2024 October 3; 10(1): 92. DOI: 10.1038/s41526-024-00432-1

Multiple-Tropism: Gravity, Nutrient and Water Interaction of Stimuli for Root Orientation in Microgravity (MULTI-TROP) — Gargiulo L, Mele G, Izzo LG, Romano LE, Aronne G. Local mapping of root orientation traits by X-ray micro-CT and 3d image analysis: A study case on carrot seedlings grown in simulated vs real weightlessness. *Plant Methods*. 2024 September 28; 20(1): 150. DOI: 10.1186/s13007-024-01276-2 *

Muscle Atrophy of Muscle Sparing in Transgenic Mice (Rodent Research-1 (CASIS)) — Cahill R, Blaber EA, Juran C, Cheng-Campbell M, Alwood JS, et al. 37-Day microgravity exposure in 16-Week female C57BL/6J mice is associated with bone loss specific to weight-bearing skeletal sites. *PLOS ONE*. 2025 March 26; 20(3): e0317307. DOI: 10.1371/journal.pone.0317307

Muscle Atrophy of Muscle Sparing in Transgenic Mice (Rodent Research-1 (CASIS)) — Oommen AM, Stafford P, Joshi L. Profiling muscle transcriptome in mice exposed to microgravity using gene set enrichment analysis. *npj Microgravity*. 2024 October 4; 10(1): 1-10. DOI: 10.1038/s41526-024-00434-z

Muscle Atrophy of Muscle Sparing in Transgenic Mice (Rodent Research-1 (CASIS)) — Roy U, Hadad R, Rodriguez AA, Saju A, Roy D, et al. Effects of space flight on inflammasome activation in the brain of mice. *Cells*. 2025 March 12; 14(6): 417. DOI: 10.3390/cells14060417

Muscle Atrophy of Muscle Sparing in Transgenic Mice (GeneLAB Rodent Research-1 (CASIS)) — Stolc V, Karhanek M, Freund F, Griko Y, Loftus DJ, et al. Metabolic stress in space: ROS-induced mutations in mice hint at a new path to cancer. *Redox Biology*. 2024 December; 78: 103398. DOI: 10.1016/j.redox.2024.103398

Neuroendocrine and Immune Responses in Humans During and After Long Term Stay at ISS, Role of Apoptosis in Lymphocyte Depression, Role of the Endocannabinoid System in human Lymphocytes Exposed to Microgravity-2 (Immuno, ROALD, ROALD-2) — Fava M, De Dominicis N, Forte G, Bari M, Leuti A, et al. Cellular and molecular effects of microgravity on the immune system: A focus on bioactive lipids. *Biomolecules*. 2024 April 5; 14(4):446. DOI: 10.3390/biom14040446 *

Rodent Research-8 (RR-8) — Arnold C, Casaletto JA, Heller P. Spaceflight Disrupts Gene Expression of Estrogen Signaling in Rodent Mammary Tissue. *Medical Research Archives*. 2024 September 11; 12(3): DOI: 10.18103/mra.v12i3.5220 *

Rodent Research-8 (RR-8) — Singh K, Verma P, Srivastava R, Rustagi Y, Kumar M, et al. Mission SpaceX CRS-19 RRRM-1 Space Flight Induced Skin Genomic Plasticity via an Epigenetic Trigger. *iScience*. 2024 December 20; 27(12): 111382. DOI: 10.1016/j.isci.2024.111382

Rodent Research Hardware and Operations Validation (Rodent Research-1) — Veliz AL, Hughes L, Carrillo D, Pecaut MJ, Kearns-Jonker M. Immunization induces inflammation in the mouse heart during spaceflight. *BMC Genomics*. 2025 March 10; 26(1): 229. DOI: 10.1186/s12864-025-11426-y

Rodent Research Hardware and Operations Validation, Assessment of myostatin inhibition to prevent skeletal muscle atrophy and weakness in mice exposed to long-duration spaceflight, Effects of Spaceflight on Gastrointestinal Microbiota in Mice: Mechanisms and Impact on Multi-System Physiology (Rodent Research-1, Rodent Research-3-Eli Lilly, Rodent Research-7 (RR-7)) — Finch RH, Vitry G, Siew K, Walsh SB, Beheshti A, et al. Spaceflight causes strain-dependent gene expression changes in the kidneys of mice. *npj Microgravity*. 2025 March 25; 11(1): 11. DOI: 10.1038/s41526-025-00465-0

Rotifer-B1 — Moris VC, Bruneau L, Berthe J, Coos R, Baselet B, et al. Rotifers in space: transcriptomic response of the bdelloid rotifer Adineta vaga aboard the International Space Station. *BMC Biology*. 2025 July; 23(1): 182. DOI: 10.1186/s12915-025-02272-1

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Space Flight Environment Induces Remodeling of Vascular Network and Glia-Vascular Communication in Mouse Retina (Rodent Research-18 (RR-18)) — Patel CM, Wiele SV, Kim L, Payne E, Bruno-Garcia M, et al. Treatment with a superoxide dismutase mimetic for joint preservation during 35 and 75 days in orbit aboard the international space station, and after 120 days recovery on Earth. *Life Sciences in Space Research*. 2025 February; 44: 67-78. DOI: 10.1016/j.lssr.2024.10.009

The Effects of Microgravity on Microglia 3-Dimensional Models of Parkinson's Disease and Multiple Sclerosis - Mission 2 (Cosmic Brain Organoids) — Marotta D, Ijaz L, Barbar L, Nijsure M, Stein J, et al. Effects of microgravity on human iPSC-derived neural organoids on the International Space Station. *Stem Cells Translational Medicine*. 2024 December; 13(12): 1186–1197. DOI: 10.1093/stcltm/szae070

UAE Palm Tree Growth Experiment (Palm Tree Growth) — Rahman S, Aldhaheri S, Kader W, Rockey J, Masmoudi K, et al. Spaceflight disrupts transcriptome dynamics and germination in date palm (Phoenix dactylifera) seeds. *Plant Stress*. 2025 September 23; epub:101045. DOI: 10.1016/j.stress.2025.101045

Earth and Space Science

Alpha Magnetic Spectrometer - 02 (AMS-02) — Aguilar-Benitez M, Ambrosi G, Anderson H, Arruda MF, Attig N, et al. Properties of cosmic lithium isotopes measured by the Alpha Magnetic Spectrometer. *Physical Review Letters*. 2025 May 23; 134(20): 201001. DOI: 10.1103/PhysRevLett.134.201001

Alpha Magnetic Spectrometer - 02 (AMS-02) — Bindi V, Casadei D, Castellini G, Contin A, Giovacchini F, et al. The scintillator detector for the fast trigger and time-of-flight (TOF) measurement of the space experiment AMS-02. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*. 2010 November 21; 623(3): 968-981. DOI: 10.1016/j.nima.2010.08.019 *

Alpha Magnetic Spectrometer - 02 (AMS-02) — Boschini MJ, Della Torre S, Gervasi M, Grandi D, Johannesson G, et al. Spectra of He Isotopes and the ^{3}He/^{4}He Ratio. *The Astrophysical Journal*. 2025 February; 981(1): 85. DOI: 10.3847/1538-4357/adb288

Alpha Magnetic Spectrometer - 02 (AMS-02) — Hashmani RK, Akbas E, Demirkoz B. A comparison of deep learning models for proton background rejection with the AMS Electromagnetic Calorimeter. *Machine Learning: Science and Technology*. 2024 October 8; 5(4): 045008. DOI: 10.1088/2632-2153/ad7cc0

Alpha Magnetic Spectrometer - 02 (AMS-02) — Krasnopevtsev D, Weng ZL, Kounine A, Xu W. Identification of positrons and electrons at TeV energy scale using the AMS tracker, time-of-flight counters, and electromagnetic calorimeter. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*. 2024 December; 1069: 169957. DOI: 10.1016/j.nima.2024.169957

Alpha Magnetic Spectrometer – 02 (AMS-02) — Modzelewska R, Siluszyk M, Iskra K, Gil A, Munini R, et al. Rigidity Dependence of the Long-term Galactic Cosmic Ray Variation by AMS-02. *The Astrophysical Journal*. 2025 September 10; 990(2):178. DOI: 10.3847/1538-4357/adf440

Alpha Magnetic Spectrometer - 02 (AMS-02) — Vasilev G, Vankova-Kirilova G, Bozhkova G. Optimization of singly-charged particles identification with the AMS02 RICH detector by a machine learning method. *Astroparticle Physics*. 2025 September 1; 171: 103134. DOI: 10.1016/j.astropartphys.2025.103134 *

Alpha Magnetic Spectrometer - 02 (AMS-02) — Yang Y, Luo X, Song X, Xu W, Potgieter MS. A numerical study of unusual flux decreases for cosmic ray protons and electrons observed by Alpha Magnetic Spectrometer in 2017. *Astronomy & Astrophysics*. 2025 February 1; 694: A197. DOI: 10.1051/0004-6361/202452416

Astrobiology Exposure and Micrometeoroid Capture Experiments (Tanpopo) — Noguchi TK, Miyake A, Yabuta H, Kebukawa Y, Suga H, et al. Mineralogy of terminal grains recovered from the Tanpopo capture panel onboard the International Space Station. *Meteoritics & Planetary Science*. 2025 April; 60. DOI: 10.1111/maps.14327

Atmosphere-Space Interactions Monitor (ASIM) — Bai X, Fullekrug M, Chanrion O, Soula S, Peverell A, et al. Height determination of a blue discharge observed by ASIM/MMIA on the International Space Station. *Journal of Geophysical Research: Atmospheres*. 2023 March 23; 128(7): e2022JD037460. DOI: 10.1029/2022JD037460 *

Atmosphere-Space Interactions Monitor (ASIM) — Caballero-Garcia MD, Gogus E, Navarro-Gonzalez J, Atapin KE, Sonbas E, et al. X-ray and gamma-ray timing of GRB 180720B, GRB 181222B, GRB 211211A, and GRB 220910A observed with Fermi and ASIM. *Monthly Notices of the Royal Astronomical Society*. 2025 March 21; 538(1): L100–L108. DOI: 10.1093/mnrasl/slaf016

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Atmosphere-Space Interactions Monitor (ASIM) — Caballero-Garcia MD, Gupta R, Pandey SB, Oates SR, Marisaldi M, et al. Multiwavelength study of the luminous GRB 210619B observed with Fermi and ASIM. *Monthly Notices of the Royal Astronomical Society.* 2023 March; 519(3): 3201-3226. DOI: 10.1093/mnras/stac3629 *

Atmosphere-Space Interactions Monitor (ASIM) — Husbjerg LS, Neubert T, Chanrion O, Marisaldi M, Stendel M, et al. Characterization of Thunderstorm Cells Producing Observable Terrestrial Gamma-Ray Flashes. *Journal of Geophysical Research: Atmospheres*. 2023; 128(17): e2023JD038893. DOI: 10.1029/2023JD038893 *

Atmosphere-Space Interactions Monitor (ASIM) — Li D, Luque A, Bruning EC, Neubert T, Chanrion O, et al. Resolving inhomogeneous cloud microphysics through cloud-top observations of blue corona discharges. *Geophysical Research Letters*. 2025 September 16; 52(17):e2025GL116520. DOI: 10.1029/2025GL116520

Atmosphere-Space Interactions Monitor (ASIM) — Li D, Luque A, Gordillo-Vasquez FJ, Perez-Invernon FJ, Husbjerg LS, et al. Different types of corona discharges associated with high-altitude positive Narrow Bipolar Events nearby cloud top. *Journal of Geophysical Research: Atmospheres*. 2023 February 27; 128(4): e2022JD037883. DOI: 10.1029/2022JD037883 *

Atmosphere-Space Interactions Monitor (ASIM) — Li D, Neubert T, Husbjerg LS, Zhu Y, Chanrion O, et al. Observation of blue corona discharges and cloud microphysics in the top of thunderstorm cells in cyclone Fani. *Journal of Geophysical Research: Atmospheres*. 2024 November 16; 128(21): e2022JD038328. DOI: 10.1029/2022JD038328

Atmosphere-Space Interactions Monitor (ASIM) — Liu F, Neubert T, Chanrion O, Liu N, Zhu B, et al. Ionospheric elves powered by corona discharges in overshooting thunderclouds. *Geophysical Research Letters*. 2025 March 28; 52(6): e2024GL114090. DOI: 10.1029/2024GL114090

Atmosphere-Space Interactions Monitor (ASIM) — Perez-Invernon FJ, Ripoll J, Gordillo-Vasquez FJ, Luque A, Camino-Faillace PA, et al. A comprehensive analysis of optical emissions, production of NOx, HOx, and other chemical species by lightning. *Journal of Geophysical Research: Atmospheres*. 2025 September 28; 130(18):e2025JD043972. DOI: 10.1029/2025JD043972

Atmospheric Waves Experiment (AWE) — Lamborn B, Scherliess L, Ruley L, Latvakoski H, Syrstad E, et al. Atmospheric waves experiment (AWE) mission overview. *Infrared Remote Sensing and Instrumentation XXXII*, San Diego, CA; 2024 October 3. 274-289. DOI: 10.1117/12.3027141

Atmospheric Waves Experiment (AWE) — Rupp T, Champagne J, Hopkins G, Esplin R, Lamborn B, et al. Atmospheric Waves Experiment (AWE) Advanced Mesospheric Temperature Mapper (AMTM) optomechanical design, fabrication, and environmental test. *Infrared Remote Sensing and Instrumentation XXXII*, San Diego, CA; 2024 October 3. 290-307. DOI: 10.1117/12.3027209

CALorimetric Electron Telescope (CALET) — Adriani O, Akaike Y, Asano K, Asaoka Y, Berti E, et al. Detected abundances of nuclei relative to 26Fe for elements 14Si through 44Ru with CALET on the International Space Station. *The Astrophysical Journal*. 2025 July; 988(2): 148. DOI: 10.3847/1538-4357/ade3cc

CALorimetric Electron Telescope (CALET) — Adriani O, Akaike Y, Asano K, Asaoka Y, Berti E, et al. Precision spectral measurements of chromium and titanium from 10 to 250 GeV/n and sub-iron to iron ratio with the Calorimetric Electron Telescope on the International Space Station. *Physical Review Letters*. 2025 July 11; 135(2):021002. DOI: 10.1103/PhysRevLett.135.021002

CALorimetric Electron Telescope (CALET) — Adriani O, Akaike Y, Asano K, Gonzi S, CALET Collaboration. New results obtained from CALET observations after 8 years of data collection on the International Space Station. Proceedings of *42nd International Conference on High Energy Physics - PoS(ICHEP2024)*, Prague, Czech Republic; 2024 December 23. 700. DOI: 10.22323/1.476.0700

CALorimetric Electron Telescope (CALET) — Torii S, CALET Collaboration. Highlights from the CALET observations for 7.5 years on the International Space Station. Proceedings of the *38th International Cosmic Ray Conference — PoS (ICRC2023)*, Nagoya, Japan; 2023 October 16. 002. DOI: 10.22323/1.444.0002

CALorimetric Electron Telescope, Monitor of All-sky X-ray Image (CALET, MAXI) — Zhang X, Artemyev AV, Katoh Y, Hsieh Y, Angelopoulos V, et al. Exploring Outer Radiation Belt Losses From the International Space Station. *Geophysical Research Letters*. 2025 July 7; 52(13):e2025GL116966. DOI: 10.1029/2025GL116966

List of Archived Space Station Publications

Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

CLARREO — Yang Q, Liu X, Wu W, Shea Y, Bhatt R, et al. Spectral Extension of the CPF-Measured Earth-Reflected Solar Radiances for CPF-CERES Intercalibration. *Journal of Geophysical Research: Atmospheres*. 2025 February; 130(4): e2024JD041054. DOI: 10.1029/2024JD041054

DLR Earth Sensing Imaging Spectrometer, Earth Surface Mineral Dust Source Investigation (DESIS, EMIT) — Tahersima MH, Thome K, Wenny B, Czapla-Myers J. Characterizing vicarious calibration test sites using imaging spectroscopy. *Earth Observing Systems XXIX*, San Diego, CA; 2024 October 3. 261-268. DOI: 10.1117/12.3028315

DLR Earth Sensing Imaging Spectrometer (DESIS) — Tahersima MH, Thome K, Wenny B, Lampkin D, Voskanian N, et al. The characterization of the Railroad Valley Playa test site using the DESIS imaging spectrometer from the space station orbit. *Remote Sensing*. 2025 January; 17(3): 396. DOI: 10.3390/rs17030396

Earth Surface Mineral Dust Source Investigation (EMIT) — Bohn N, Bair EH, Brodrick PG, Carmon N, Green RO, et al. Do we still need reflectance? From radiance to snow properties in mountainous terrain: a case study with the EMIT imaging spectrometer. *The Cryosphere*. 2025 March 17; 19(3): 1279–1302. DOI: 10.5194/tc-19-1279-2025

Earth Surface Mineral Dust Source Investigation (EMIT) — Coleman RW, Thompson DR, Brodrick PG, Ben-Dor E, Cox E, et al. An accuracy assessment of the surface reflectance product from the EMIT imaging spectrometer. *Remote Sensing of Environment*. 2024 December 15; 315: 114450. DOI: 10.1016/j.rse.2024.114450

Earth Surface Mineral Dust Source Investigation (EMIT) — Ochoa F, Brodrick PG, Okin G, Ben-Dor E, Meyer T, et al. Soil and vegetation cover estimation for global imaging spectroscopy using spectral mixture analysis. *Remote Sensing of Environment*. 2025 July; 324: 114746. DOI: 10.1016/j.rse.2025.114746

Earth Surface Mineral Dust Source Investigation, Orbiting Carbon Observatory-3 (EMIT, OCO-3) — Nelson RR, Cusworth DH, Thorpe AK, Kim J, Elder CD, et al. Comparing point source CO_2 emission rate estimates from near-simultaneous OCO-3 and EMIT observations. *Geophysical Research Letters*. 2024 December 16; 51(23): e2024GL113002. DOI: 10.1029/2024GL113002

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Chang Y, Weng Q, Voogt JA, Xiao J. Urban thermal anisotropies by local climate zones: An assessment using multi-angle land surface temperatures from ECOSTRESS. *Remote Sensing of Environment*. 2025 May 15; 322: 114705. DOI: 10.1016/j.rse.2025.114705

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Cooley SS, Keller M, Longo M, Csillik O, Dias AP, et al. Thermal stress in degraded forests in the Brazilian Amazon Arc of Deforestation. *Environmental Research Letters*. 2025 July; 20(8): 084069. DOI: 10.1088/1748-9326/adea98

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Huang J, Sehgal V, Alvarez LV, Brocca L, Cai S, et al. Remotely Sensed High-Resolution Soil Moisture and Evapotranspiration: Bridging the Gap Between Science and Society. *Water Resources Research*. 2025 May 13; 61(5): e2024WR037929. DOI: 10.1029/2024WR037929

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Kirsch B, Fisher JB, Piechota T, Hassani M, Suardiaz DC. Satellite observations indicate that chia uses less water than other crops in warm climates. *Communications Biology*. 2024 September 30; 7(1): 1-10. DOI: 10.1038/s42003-024-06841-y *

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Kohli G, Lee CM, Fisher JB, Halverson GH, Variano E, et al. ECOSTRESS and CIMIS: a comparison of potential and reference evapotranspiration in Riverside County, California. *Remote Sensing*. 2020 December; 12(24): 4126. DOI: 10.3390/rs12244126 *

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Longenecker J, Benzoni F, Dunn N, Fox HE, Gleason A, Otis D, Chirayath V, Oury N, Purkis SJ, et al. Coral reef thermal microclimates mapped from the International Space Station. *Coral Reefs*. 2025 February 3; 44: 381–398. DOI: 10.1007/s00338-024-02607-4

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Pierrat ZA, Purdy AJ, Halverson GH, Fisher JB, Mallick K, et al. Evaluation of ECOSTRESS collection 2 evapotranspiration products: Strengths and uncertainties for evapotranspiration modeling. *Water Resources Research*. 2025; 61(6): e2024WR039404. DOI: 10.1029/2024WR039404

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(Listed by category and alphabetically)

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Shreevastava A, Hulley GC, Prasanth S, Chakraborty T, Ramos Aguilera D, et al. Contemporary income inequality outweighs historic redlining in shaping intra-urban heat disparities in Los Angeles. *Nature Communications*. 2025 May 28; 16(1): 4950. DOI: https://doi.org/10.1038/s41467-025-59912-x *

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Weidberg N, Wethey DS, Woodin SA. Global intercomparison of hyper-resolution ECOSTRESS coastal sea surface temperature measurements from the Space Station with VIIRS-N20. *Remote Sensing*. 2021 January; 13(24): 5021. DOI: 10.3390/rs13245021 *

ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station (ECOSTRESS) — Zhu Y, Murugesan SB, Masara IK, Myint SW, Fisher JB. Examining wildfire dynamics using ECOSTRESS data with machine learning approaches: the case of South-Eastern Australia's black summer. *Remote Sensing in Ecology and Conservation*. 2025 June; 11(3): 266-281. DOI: 10.1002/rse2.422

EuTEF-Expose-Life — Cassaro A, Pacelli C, Fanelli G, Baque M, Maturilli A, et al. Biomarker preservation in Antarctic sandstones after prolonged space exposure outside the International Space Station during the ESA EXPOSE-E Lichens and Fungi Experiment. *Astrobiology*. 2025 May 14; 25(5). DOI: 10.1089/ast.2024.0068

ExHAM: Astrobiology Japan 3 (Tanpopo-3) — Sugimoto M, Maekawa M, Mita H, Yokobori S. Anthocyanin can improve the survival of rice seeds from solar light outside the international space station. *Life Sciences in Space Research*. 2025 February; 44: 79-85. DOI: 10.1016/j.lssr.2024.10.010

EXPOSE-R2–Photochemistry on the Space Station (EXPOSE-R2-P.S.S.) — Wipf S, Mabey P, Urso RG, Wolf S, Stok A, et al. Photochemical evolution of alanine in association with the Martian soil analog montmorillonite: insights derived from experiments conducted on the International Space Station. *Astrobiology*. 2025 February 18; 25(2): 97–114. DOI: 10.1089/ast.2024.0034

Monitor of All-sky X-ray Image (MAXI) — Abalo L, Kretschmar P, Furst F, Diez CM, El Mellah I, et al. Variable structures in the stellar wind of the HMXB Vela X-1. *Astronomy & Astrophysics*. 2024 December 1; 692: A188. DOI: 10.1051/0004-6361/202450168

Monitor of All-sky X-ray Image (MAXI) — Alfaro R, Alvarez C, Arteaga-Velazquez JC, Avila Rojas D, Ayala Solares HA, et al. Ultra-high-energy gamma-ray bubble around microquasar V4641 Sgr. *Nature*. 2024 October; 634(8034): 557-560. DOI: 10.1038/s41586-024-07995-9

Monitor of All-sky X-ray Image (MAXI) — Alsulami R, Einecke S, Rowell G, McGee P, Filipovic MD, et al. Investigating unusual Hα features towards the Scutum Supershell. *Publications of the Astronomical Society of Australia*. 2024 January; 41: e098. DOI: 10.1017/pasa.2024.99 *

Monitor of All-sky X-ray Image (MAXI) — Aoyama A, Enoto T, Takahashi T, Watanabe S, Takeda T, et al. Thermonuclear superburst of MAXI J1752-457 observed with NinjaSat and MAXI. *The Astrophysical Journal Letters*. 2025 June; 986(2): L29. DOI: 10.3847/2041-8213/addd00

Monitor of All-sky X-ray Image (MAXI) — Chatterjee K, Mondal S, Singh CB, Sugizaki M. Insight-HXMT view of the black hole candidate Swift J1727.8–1613 during its outburst in 2023. *The Astrophysical Journal*. 2024 December 10; 977(2): 148. DOI: 10.3847/1538-4357/ad8dc4

Monitor of All-sky X-ray Image (MAXI) — Chou Y, Wu J, Chen B, Chang W. The Puzzling Superorbital Period Variation of the Low-mass X-Ray Binary 4U 1820–30. *The Astrophysical Journal*. 2025 February; 981(1): 43. DOI: 10.3847/1538-4357/adaded

Monitor of All-sky X-ray Image (MAXI) — Corbet RH, Ballhausen R, Becker P, Coley JB, Fuerst F, et al. Sharp Periodic Flares and Long-term Variability in the High-mass X-Ray Binary XTE J1829-098 from RXTE PCA, Swift BAT, and MAXI Observations. *The Astrophysical Journal*. 2024 November; 976(1): 137. DOI: 10.3847/1538-4357/ad83b9

Monitor of All-sky X-ray Image (MAXI) — Gandhi P, Borowski ES, Byrom J, Hynes RI, Maccarone TJ, et al. Rapid Mid-Infrared Spectral-Timing with JWST: I. GRS1915+105 during a MIR–bright and X-ray–obscured state. *Monthly Notices of the Royal Astronomical Society*. 2025 February; 537(2): 1385–1403. DOI: 10.1093/mnras/staf036

Monitor of All-sky X-ray Image (MAXI) — Heinke CO, Zheng J, Maccarone TJ, Degenaar N, Bahramian A, et al. Catalog of Outbursts of Neutron Star Low-mass X-Ray Binaries. *The Astrophysical Journal Supplement Series*. 2025 August; 279(2): 57. DOI: 10.3847/1538-4365/ade99a

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Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

Monitor of All-sky X-ray Image (MAXI) — Huang R, Ji L, Yan JZ. Orbital Phase Shifts of Type-I Outbursts in EXO 2030+375. *The Astrophysical Journal*. 2025 May 1; 984(1): 66. DOI: 10.3847/1538-4357/adc573

Monitor of All-sky X-ray Image (MAXI) — Kapanadze B, Gurchumelia A, Aller M, et al. Long-term multiwavelength observations of 1ES 1218+304: physical implications of the flux and spectral variability. *Monthly Notices of the Royal Astronomical Society*. 2025 April 24; 3(539): 2826–2828. DOI: 10.1093/mnras/staf653

Monitor of All-sky X-ray Image (MAXI) — Klawin M, Ducci L, Serim MM, Santangelo A, Ferrigno C, et al. Searching for orbital period modulation in X-ray observations of the symbiotic X-ray binary GX 1+4. *Astronomy and Astrophysics*. 2024 November; 692(A19): 8. DOI: 10.1051/0004-6361/202452031

Monitor of All-sky X-ray Image (MAXI) — Leahy D, Mendelsohn J. The geometry of the Hercules X-1 accretion disk from X-rays. *Discover Space*. 2025 March 24; 129(1): 5. DOI: 10.1007/s11038-025-09564-0

Monitor of All-sky X-ray Image (MAXI) — Loktev V, Forsblom SV, Tsygankov SS, Poutanen J, Mushtukov AA, et al. Exploring polarization and geometry in the X-ray pulsar 4U 1538-52. *Astronomy & Astrophysics*. 2025 May 28; 698: A22. DOI: 10.1051/0004-6361/202554151

Monitor of All-sky X-ray Image (MAXI) — Ng M, Hughes AK, Homan J, Miller JM, Pike SN, et al. X-Ray and Radio Monitoring of the Neutron Star Low-mass X-Ray Binary 1A 1744-361: Quasiperiodic Oscillations, Transient Ejections, and a Disk Atmosphere. *The Astrophysical Journal*. 2024 May 10; 966(2): 232. DOI: 10.3847/1538-4357/ad35bd *

Monitor of All-sky X-ray Image (MAXI) — Niwano M, Fausnaugh M, Lau RM, De K, Soria R, et al. Possible anticorrelations between pulsation amplitudes and the disc growth of Be stars in giant-outbursting Be X-ray binaries. *Monthly Notices of the Royal Astronomical Society*. 2024 November 1; 534(3): 2168-2183. DOI: 10.1093/mnras/stae2160

Monitor of All-sky X-ray Image (MAXI) — Simon V, Hudec R, Read A. The satellite SMILE – its prospects for observing cosmic sources. *Acta Polytechnica*. 2025 March 6; 65(1): 110–114. DOI: 10.14311/AP.2025.65.0110

Monitor of All-sky X-ray Image (MAXI) — Tamang R, Kinjal R, Manikantan H, Balu A, Paul B. Unveiling the intensity-dependent wake structure of Vela X-1 using MAXI/GSC. *Astronomy & Astrophysics*. 2025 May; 698: A122. DOI: 10.1051/0004-6361/202451923

Monitor of All-sky X-ray Image (MAXI) — Torregrosa Alberola A, Rodes-Roca JJ, Torrejon JM, Sanjurjo-Ferrin G, Mihara T, Nakajima M, et al. GX 301-2 pre-periastron and apastron flares with MAXI. *Revista Mexicana de Astronomía y Astrofísica*. 2025 April; 61: 29–47. DOI: 10.22201/ia.01851101p.2025.61.01.03 *

Neutron star Interior Composition Explorer (NICER) — Adegoke OK, Garcia JA, Connors RM, Ding Y, Mastroserio G, et al. Characterizing the Broadband Reflection Spectrum of MAXI J1803-298 during Its 2021 Outburst with NuSTAR and NICER. *The Astrophysical Journal*. 2024 December 10; 977(1): 26. DOI: 10.3847/1538-4357/ad82e9

Neutron star Interior Composition Explorer (NICER) — Aharonian F, Benkhali FAit, Aschersleben J, Ashkar H, Backes M, et al. H.E.S.S. observations of the 2021 periastron passage of PSR B1259-63/LS 2883. *Astronomy & Astrophysics*. 2024 July; 687: A219. DOI: 10.1051/0004-6361/202449612 *

Neutron star Interior Composition Explorer (NICER) — Alabarta K, Mendez M, Garcia F, Altamirano D, Zhang Y, et al. Geometry of the Comptonization region of MAXI J1348-630 through type-C quasiperiodic oscillations with NICER. *The Astrophysical Journal*. 2025 February; 980(2): 251. DOI: 10.3847/1538-4357/ada7f9

Neutron star Interior Composition Explorer (NICER) — Alabarta K, Mendez M, Garcia F, Peirano V, Altamirano D, et al. Variability and phase lags of the type-C quasi-periodic oscillation of MAXI J1348–630 with NICER. *Monthly Notices of the Royal Astronomical Society*. 2022 June 21; 514(2): 2839–2854. DOI: 10.1093/mnras/stac1533 *

Neutron star Interior Composition Explorer (NICER) — Albayati AC, Bult PM, Altamirano D, Chenevez J, Guillot S, et al. Thermonuclear type-I X-ray bursts and burst oscillations from the eclipsing AMXP swift J1749.4–2807. M*onthly Notices of the Royal Astronomical Society*. 2023 September 11; 524(2): 2477–2488. DOI: 10.1093/mnras/stad1892 *

Neutron star Interior Composition Explorer (NICER) — Arcodia R, Liu Z, Merloni A, Malyali A, Rau A, et al. The more the merrier: SRG/eROSITA discovers two further galaxies showing X-ray quasi-periodic eruptions. *Astronomy & Astrophysics*. 2024 April; 684: A64. DOI: 10.1051/0004-6361/202348881 *

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Asquini L, Baglio MC, Campana S, D'Avanzo P, Zanon AM, et al. Lack of emission lines in the optical spectra of SAX J1808.4–3658 during reflaring of the 2019 outburst. *Astronomy & Astrophysics*. 2024 December; 692: A16. DOI: 10.1051/0004-6361/202450816

Neutron star Interior Composition Explorer (NICER) — Baglio MC, Zelati FC, Campana S, Busquet G, D'Avanzo P, et al. Matter ejections behind the highs and lows of the transitional millisecond pulsar PSR J1023+0038. *Astronomy & Astrophysics*. 2023 September; 677: A30. DOI: 10.1051/0004-6361/202346418 *

Neutron star Interior Composition Explorer (NICER) — Baglio MC, Zelati FC, Di Marco A, La Monaca F, Papitto A, et al. Polarized multiwavelength emission from pulsar wind—accretion disk interaction in a transitional millisecond pulsar. *The Astrophysical Journal Letters*. 2025 July 1; 987(1): L19. DOI: 10.3847/2041-8213/add7d2

Neutron star Interior Composition Explorer (NICER) — Ballhausen R, Thalhammer P, Pradhan P, Sokolova-Lapa E, Stierhof J, et al. The giant outburst of EXO 2030+375: II. Broadband spectroscopy and evolution. *Astronomy & Astrophysics*. 2024 August; 688: A214. DOI: 10.1051/0004-6361/202348595 *

Neutron star Interior Composition Explorer (NICER) — Banerjee S, Homan J. Probing the accretion geometry of the atoll source 4U 1702-429 in different spectral states with NICER, NuSTAR, and AstroSat. *Monthly Notices of the Royal Astronomical Society*. 2024 March 23; 529(4): 4311–4324. DOI: 10.1093/mnras/stae541 *

Neutron star Interior Composition Explorer (NICER) — Bansal K, Wharton RS, Pearlman AB, Majid WA, Prince TA, et al. Simultaneous radio and X-ray observations of the magnetar Swift J1818.0-1607. *Monthly Notices of the Royal Astronomical Society*. 2023 May 30; 523(2): 2401–2408. DOI: 10.1093/mnras/stad1520 *

Neutron star Interior Composition Explorer (NICER) — Barra F, Barret D, Pinto C, Di Salvo T, Weinberg N, et al. Line detections in photospheric radius expansion bursts from 4U 1820-303 - Confirmation of previous detections and their temporal evolution. *Astronomy & Astrophysics*. 2025 February 19; 694 (A266): 17pp. DOI: 10.1051/0004-6361/202452878

Neutron star Interior Composition Explorer (NICER) — Bhargava Y, Dewangan GC, Anupama GC, Kamath US, Sonith LS, et al. Soft X-ray and FUV observations of Nova Her 2021 (V1674 Her) with AstroSat. *Monthly Notices of the Royal Astronomical Society*. 2024 January 13; 528(1): 28–38. DOI: 10.1093/mnras/stad3870 *

Neutron star Interior Composition Explorer (NICER) — Bhargava Y, Hazra N, Rao AR, Misra R, Bhattacharya D, et al. Probing the shot behaviour in Cygnus X-1 using simultaneous AstroSat-NICER observation. *Monthly Notices of the Royal Astronomical Society*. 2022 April 19; 512(4): 6067–6077. DOI: 10.1093/mnras/stac853 *

Neutron star Interior Composition Explorer (NICER) — Bhattacherjee S, Nath A, Sarkar B, Beri A, Chattopadhyay S, et al. X-ray spectral and temporal properties of LMXB 4U 1608-52—observed with AstroSat and NICER. *The Astrophysical Journal*. 2024 August 20; 971: 154. DOI: 10.3847/1538-4357/ad583d *

Neutron star Interior Composition Explorer (NICER) — Bootsma E, Vinciguerra S, Watts AL, Kini Y, Salmi T. Scaling relations for the uncertainty in neutron star radius inferred from pulse profile modelling: the effect of spin rate. *Monthly Notices of the Royal Astronomical Society*. 2025 March 11; 537(4): 3769–3780. DOI: 10.1093/mnras/staf259

Neutron star Interior Composition Explorer (NICER) — Borghese A, Rea N, Turolla R, Rigoselli M, Alford J, et al. The X-ray evolution and geometry of the 2018 outburst of XTE J1810-197. *Monthly Notices of the Royal Astronomical Society*. 2021 May 19; 504(4): 5244–5257. DOI: 10.1093/mnras/stab1236 *

Neutron star Interior Composition Explorer (NICER) — Bostanci ZF, Boztepe T, Guver T, Strohmayer TE, Cavecchi Y, et al. NICER observations of thermonuclear bursts from 4U 1728-34: Detection of oscillations prior to the onset of two bursts. *The Astrophysical Journal*. 2023 November 20; 958(1): 55. DOI: 10.3847/1538-4357/acfc4c *

Neutron star Interior Composition Explorer (NICER) — Brumback M, Vasilopoulous G, Coley JB, Dage K, Miller JM. Constraining the evolution of the unstable accretion disk in SMC X-1 with NICER. *The Astrophysical Journal*. 2023 August 10; 953(1): 89. DOI: 10.3847/1538-4357/ace04f *

Neutron star Interior Composition Explorer (NICER) — Bult PM, Mancuso GC, Strohmayer TE, Albayati AC, Altamirano D, et al. The thermonuclear X-ray bursts of 4U 1730–22. *The Astrophysical Journal*. 2022 November 1; 940(1): 81. DOI: 10.3847/1538-4357/ac9b26 *

List of Archived Space Station Publications

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Cao X, You B, Wei X. An accretion disc with magnetic outflows triggered by a sudden mass accretion event in changing-look active galactic nucleus 1ES 1927+654. *Monthly Notices of the Royal Astronomical Society*. 2023 September 29; 526(2): 2331–2340. DOI: 10.1093/mnras/stad2877 *

Neutron star Interior Composition Explorer (NICER) — Cao Z, Jonker PG, Pasham DR, Wen S, Stone NC, et al. Tidal disruption event AT2020ocn: Early time X-ray flares caused by a possible disk alignment process. *The Astrophysical Journal*. 2024 July 20; 970(1): 89. DOI: 10.3847/1538-4357/ad496f *

Neutron star Interior Composition Explorer (NICER) — Chakraborty J, Arcodia R, Kara E, Miniutti G, Giustini M, et al. Testing EMRI models for quasi-periodic eruptions with 3.5 yr of monitoring eRO-QPE1. *The Astrophysical Journal*. 2024 April 1; 965(1): 12. DOI: 10.3847/1538-4357/ad2941 *

Neutron star Interior Composition Explorer (NICER) — Chakraborty J, Kosec P, Kara E, Miniutti G, Arcodia R, et al. Rapidly varying ionization features in a quasi-periodic eruption: A homologous expansion model for the spectroscopic evolution. *The Astrophysical Journal*. 2025 May 6; 984(2): 124. DOI: 10.3847/1538-4357/adb972

Neutron star Interior Composition Explorer (NICER) — Chatterjee D, Jana A, Chang HK. Accretion Properties of Soft X-Ray Transient XTE J1856+053 during Its 2023 Outburst. *The Astrophysical Journal*. 2024 September 1; 972(1): 97. DOI: 10.3847/1538-4357/ad67de *

Neutron star Interior Composition Explorer (NICER) — Chen DD, Liu QZ. Detection of the free precession period of the accreting neutron star in 4U 1820–30. *Monthly Notices of the Royal Astronomical Society*. 2023 May 30; 523(2): 2663-2677. DOI: 10.1093/mnras/stad1566 *

Neutron star Interior Composition Explorer (NICER) — Chen Y, Zhang S, Ji L, Zhang S, Kong LD, et al. Insight-HXMT Observation of 4U 1608–52: Evidence of Interplay between a Thermonuclear Burst and Accretion Environment. *The Astrophysical Journal*. 2022 September 1; 936(1): 46. DOI: 10.3847/1538-4357/ac87a0 *

Neutron star Interior Composition Explorer (NICER) — Chen Y, Zhang S, Ji L, Zhang S, Wang PJ, et al. The Prolific Thermonuclear X-Ray Bursts from the Outburst of the Newly Discovered Millisecond Pulsar MAXI J1816–195 Observed by Insight-HXMT and NICER. *The Astrophysical Journal Letters*. 2022 September 10. DOI: 10.3847/2041-8213/ac8c2c *

Neutron star Interior Composition Explorer (NICER) — Chen Y, Zhang S, Zhang S, Ji L, Wang PJ, et al. Return of 4U 1730–22 after 49 yr Silence: The Outburst Properties Observed by NICER and Insight-HXMT. *The Astrophysical Journal Letters*. 2023 January 1; 942(1): L12. DOI: 10.3847/2041-8213/aca76a *

Neutron star Interior Composition Explorer (NICER) — Chen Y, Zhang S, Zhang S, Ji L, Wang PJ, et al. Return of 4U 1730–22 after 49 yr Silence: The Peculiar Burst Properties of the 2021/2022 Outbursts Observed by Insight-HXMT. *The Astrophysical Journal*. 2023 January 10; 942(2): 97. DOI: 10.3847/1538-4357/aca094 *

Neutron star Interior Composition Explorer (NICER) — Chernyakova M, Malyshev D, van Soelen B, Gallagher A, Matchett N, et al. Multiwavelength coverage of the 2024 periastron passage of PSR B1259–63/LS 2883. *Monthly Notices of the Royal Astronomical Society*. 2025 January; 536(1): 247-253. DOI: 10.1093/mnras/stae2621

Neutron star Interior Composition Explorer (NICER) — Chernyakova M, Malyshev D, van Soelen B, O'Sullivan S, Sobey C, et al. Multi-Wavelength Properties of the 2021 Periastron Passage of PSR B1259-63. *Universe*. 2021 July 13; 7(7): 242. DOI: 10.3390/universe7070242 *

Neutron star Interior Composition Explorer (NICER) — Chhotaray B, Jaisawal GK, Naik S, Jana A. Broad-band study of the SMC pulsar RX J0032.9-7348 during its X-ray brightening in 2024. *Monthly Notices of the Royal Astronomical Society*. 2025 June 1; 539: 3437-3444. DOI: 10.1093/mnras/staf723

Neutron star Interior Composition Explorer (NICER) — Chopra A, Chakraborty M, Kashyap U. Spectro-temporal investigation of quasi-periodic oscillations from black hole X-ray binary 4U 1630-472 using NICER. *Journal of High Energy Astrophysics*. 2025 April; 46: 100344. DOI: 10.1016/j.jheap.2025.01.016

Neutron star Interior Composition Explorer (NICER) — Chou Y, Jhang Y. Updated Orbital Ephemeris and Detection of Superhump Modulation in X-Ray Band for the Ultra-compact Low Mass X-Ray Binary 4U 1820-30. *The Astrophysical Journal*. 2023 July 1; 951(1): 42. DOI: 10.3847/1538-4357/acd376 *

Neutron star Interior Composition Explorer (NICER) — Cook A, Scholz P, Pearlman AB, Abbott T, Cruces M, et al. Contemporaneous X-Ray Observations of 30 Bright Radio Bursts from the Prolific Fast Radio Burst Source FRB 20220912A. *The Astrophysical Journal*. 2024 October; 974(2): 170. DOI: 10.3847/1538-4357/ad6a13

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Dai X, Kong LD, Ji L, Zhou ML, Shui Q, et al. Unveiling the rebrightening mechanism of GRS 1915+105: Insights from a change in the quasi-periodic oscillations and from a wind analysis. *Astronomy & Astrophysics*. 2024 December 1; 692: A117. DOI: 10.1051/0004-6361/202452132

Neutron star Interior Composition Explorer (NICER) — Danehkar A. IGR J12580+0134: The Nearest Tidal Disruption Event and Its Faint Resurrection. *The Astrophysical Journal*. 2025 June 10; 986(1): 50. DOI: 10.3847/1538-4357/adce7e

Neutron star Interior Composition Explorer (NICER) — Das B, Petit V, Naze Y, Corcoran MF, Cohen DH, et al. Discovery of extraordinary X-ray emission from magnetospheric interaction in the unique binary stellar system ε Lupi. *Monthly Notices of the Royal Astronomical Society*. 2023 May 11; 522(4): 5805-5827. DOI: 10.1093/mnras/stad1276 *

Neutron star Interior Composition Explorer (NICER) — Datta SR, Dovciak M, Bursa M, Zhang WD, Horak J, et al. Investigating the consistency of the shape and flux of X-ray reflection spectra in the hard state with an accretion disk reaching close to the black hole. *Astronomy & Astrophysics*. 2024 November 1; 691: A85. DOI: 10.1051/0004-6361/202450352

Neutron star Interior Composition Explorer (NICER) — De Grandis D, Rigoselli M, Mereghetti S, Younes GA, Pizzochero P, et al. Two decades of X-ray observations of the isolated neutron star RX J1856.5−3754: detection of thermal and non-thermal hard X-rays and refined spin-down measurement. *Monthly Notices of the Royal Astronomical Society*. 2022 November 11; 516(4): 4932-4941. DOI: 10.1093/mnras/stac2587 *

Neutron star Interior Composition Explorer (NICER) — Debnath D, Nath SK, Chatterjee D, Chatterjee K, Chang H. Detection of QPO Soft Lag during the Outburst of Swift J1727.8-1613: Estimation of Intrinsic Parameters from Spectral Study. *The Astrophysical Journal.* 2024 November 10; 975(2): 194. DOI: 10.3847/1538-4357/ad7a76

Neutron star Interior Composition Explorer (NICER) — Dhaka R, Misra R, Jain P, Yadav JS. Exploring the broadband spectral and timing characteristics of GRS 1915+105 with AstroSat and NICER observations. *The Astrophysical Journal*. 2024 October 10; 974(1): 90. DOI: 10.3847/1538-4357/ad67e4 *

Neutron star Interior Composition Explorer (NICER) — Di Marco A, La Monaca F, Bobrikova A, Stella L, Papitto A, et al. X-Ray Dips and Polarization Angle Swings in GX 13+1. *The Astrophysical Journal Letters*. 2025 January; 979(2): L47. DOI: 10.3847/2041-8213/ada7f8

Neutron star Interior Composition Explorer (NICER) — Dittmann AJ, Miller MC, Lamb FK, Holt IM, Chirenti C, et al. A more precise measurement of the radius of PSR J0740+6620 using updated NICER data. *The Astrophysical Journal*. 2024 October; 974(2): 295. DOI: 10.3847/1538-4357/ad5f1e *

Neutron star Interior Composition Explorer (NICER) — Doroshenko V, Poutanen J, Heyl J, Tsygankov SS, Caiazzo I, et al. Complex variations in X-ray polarization in the X-ray pulsar LS V +44 17/RX J0440.9+4431. *Astronomy & Astrophysics*. 2023 September 1; 677: A57. DOI: 10.1051/0004-6361/202347088 *

Neutron star Interior Composition Explorer (NICER) — Draghis PA, Miller JM, Brumback M, Fabian AC, Tomsick JA, et al. An extreme black hole in the recurrent X-ray transient XTE J2012+381. *The Astrophysical Journal*. 2023 August; 954(1): 62. DOI: 10.3847/1538-4357/ace7b3 *

Neutron star Interior Composition Explorer (NICER) — Duvvuri GM, Cauley PW, Cruz Aguirre F, Kilgard R, France K, et al. The high-energy spectrum of the young planet host V1298 Tau. *The Astronomical Journal*. 2023 October; 166(5): 196. DOI: 10.3847/1538-3881/acfa74

Neutron star Interior Composition Explorer (NICER) — Earnshaw H, Bachetti M, Brightman M, Furst F, Harrison FA, et al. Return to the forgotten ultraluminous X-ray source: A broadband NICER+NuSTAR study of NGC 4190 ULX-1. *The Astrophysical Journal*. 2024 June; 968(2): 111. DOI: 10.3847/1538-4357/ad43d9 *

Neutron star Interior Composition Explorer (NICER) — Espinoza CM, Kuiper LM, Ho WC, Antonopoulou D, Arzoumanian Z, et al. A growing braking index and spin-down swings for the pulsar PSR B0540–69. *The Astrophysical Journal Letters*. 2024 September; 973(2): L39. DOI: 10.3847/2041-8213/ad778c *

Neutron star Interior Composition Explorer (NICER) — Fabiani S, Capitanio F, Iaria R, Poutanen J, Gnarini A, et al. Discovery of a variable energy-dependent X-ray polarization in the accreting neutron star GX 5-1. *Astronomy & Astrophysics*. 2024 April 1; 684: A137. DOI: 10.1051/0004-6361/202347374 *

Neutron star Interior Composition Explorer (NICER) — Fei Z, Lyu M, Zhang G, Yang X, Garcia F. Spectral properties of the neutron star low-mass X-ray binaries 4U 1636–53, XTE J1739–285, and MAXI J1816–195. *Astronomy & Astrophysics*. 2025 March 11; 695: A85. DOI: 10.1051/0004-6361/202451211

List of Archived Space Station Publications

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Fiori M, Zampieri L, Burtovoi A, Naletto G, Ochner P, et al. Optical and X-ray timing analysis of the 2018–2020 outburst and rebrightening of the black hole transient MAXI J1820+070. *Astronomy & Astrophysics*. 2025 May 20; 697: A222. DOI: 10.1051/0004-6361/202553899

Neutron star Interior Composition Explorer (NICER) — Fogantini FA, Garcia F, Mendez M, Konig O, Wilms J. A hidden quasi-periodic oscillation in Cygnus X-1 revealed by NICER. *Astronomy & Astrophysics*. 2025 April 1; 696: A237. DOI: 10.1051/0004-6361/202453523

Neutron star Interior Composition Explorer (NICER) — Ford NM, Nowak MA, Ramakrishnan V, Haggard D, Dage K, et al. Tracking X-Ray Variability in Next-generation EHT Low-luminosity Active Galactic Nucleus Targets. *The Astrophysical Journal*. 2025 March 4; 981(2): 126. DOI: 10.3847/1538-4357/adae0f

Neutron star Interior Composition Explorer (NICER) — Garg A, Rawat D, Mendez M. Unveiling the X-ray polarimetric properties of LMC X-3 with IXPE, NICER, and Swift/XRT. *Monthly Notices of the Royal Astronomical Society*. 2024 June 11; 531(1): 585–591. DOI: 10.1093/mnras/stae1198 *

Neutron star Interior Composition Explorer (NICER) — Gianolli VE, Bianchi S, Kammoun E, Gnarini A, Marinucci A, et al. A second view on the X-ray polarization of NGC 4151 with IXPE. *Astronomy & Astrophysics*. 2024 November; 691: A29. DOI: 10.1051/0004-6361/202451645

Neutron star Interior Composition Explorer (NICER) — Gnarini A, Saade ML, Ursini F, Bianchi S, Capitanio F, et al. Constraining the geometry of the dipping atoll 4U 1624–49 with X-ray spectroscopy and polarimetry. *Astronomy & Astrophysics*. 2024 October 1; 690: A230. DOI: 10.1051/0004-6361/202450716

Neutron star Interior Composition Explorer (NICER) — Gunther HM, Pasham DR, Binks A, Czesla S, Enoto T, et al. A Long-duration Superflare on the K Giant HD 251108. *The Astrophysical Journal*. 2024 November; 977(1): 6. DOI: 10.3847/1538-4357/ad8b2c

Neutron star Interior Composition Explorer (NICER) — Gusinskaia NV, Russell TD, Hessels JW, Bogdanov S, Degenaar N, et al. Radio and X-ray monitoring of the accreting millisecond X-ray pulsar IGR J17591-2342 in outburst. *Monthly Notices of the Royal Astronomical Society*. 2020 February 11; 492(1): 1091–1101. DOI: 10.1093/mnras/stz3460 *

Neutron star Interior Composition Explorer (NICER) — Guver T, Bostanci ZF, Boztepe T, Gogus E, Bult PM, et al. Burst–Disk Interaction in 4U 1636–536 as Observed by NICER. *The Astrophysical Journal*. 2022 August; 935(2): 154. DOI: 10.3847/1538-4357/ac8106 *

Neutron star Interior Composition Explorer (NICER) — Hernandez-Garcia L, Chakraborty J, Sanchez-Saez P, Ricci C, Cuadra J, et al. Discovery of extreme quasi-periodic eruptions in a newly accreting massive black hole. *Nature Astronomy*. 2025 April 11; 9: 895–906. DOI: 10.1038/s41550-025-02523-9

Neutron star Interior Composition Explorer (NICER) — Heyl J, Taverna R, Turolla R, Israel G, Ng M, et al. The detection of polarized X-ray emission from the magnetar 1E 2259+586. *Monthly Notices of the Royal Astronomical Society*. 2024 February 1; 527(4): 12219–12231. DOI: 10.1093/mnras/stad3680 *

Neutron star Interior Composition Explorer (NICER) — Ho WC, Guillot S, Saz Parkinson PM, Limyansky B, Ng C, et al. Proper motion, spectra, and timing of PSR J1813–1749 using Chandra and NICER. *Monthly Notices of the Royal Astronomical Society*. 2020 October 1; 498(3): 4396–4403. DOI: 10.1093/mnras/staa2653 *

Neutron star Interior Composition Explorer (NICER) — Homan D, Krumpe M, Markowitz AG, Saha T, Gokus A, et al. Discovery of the luminous X-ray ignition eRASSt J234402.9-352640 – I. Tidal disruption event or a rapid increase in accretion in an active galactic nucleus? *Astronomy & Astrophysics*. 2023 April 1; 672: A167. DOI: 10.1051/0004-6361/202245078 *

Neutron star Interior Composition Explorer (NICER) — Hoogkamer M, Kini Y, Salmi T, Watts AL, Buchner J, et al. Cross-comparison of sampling algorithms for pulse profile modeling of PSR J0740+6620. *Physical Review D*. 2025 July 8; 112(2): 023008. DOI: 10.1103/cp8c-2nbk

Neutron star Interior Composition Explorer (NICER) — Hu C, Wadiasingh Z, Ho WC, Baring MG, Younes GA, et al. Rapid spectral evolution of SGR 1935+2154 during its 2022 outburst. *The Astrophysical Journal*. 2025 August 10; 989(1): 63. DOI: 10.3847/1538-4357/adea4e

Neutron star Interior Composition Explorer (NICER) — Huang C. Equation of state independent determination on the radius of a 1.4 M? neutron star using mass–radius measurements. *The Astrophysical Journal Letters*. 2024 December 30; 978(1): L14. DOI: 10.3847/2041-8213/ad9f3c

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Huang C, Sourav S. Constraining First-order Phase Transition inside Neutron Stars with Application of Bayesian Techniques on PSR J0437–4715 NICER Data. *The Astrophysical Journal*. 2025 April; 983(1): DOI: 10.3847/1538-4357/adbb67

Neutron star Interior Composition Explorer (NICER) — Huang C, Tolos L, Providencia C, Watts AL. Constraining a relativistic mean field model using neutron star mass–radius measurements II: hyperonic models. *Monthly Notices of the Royal Astronomical Society*. 2025 February 1; 536(4): 3262-3275. DOI: 10.1093/mnras/stae2792

Neutron star Interior Composition Explorer (NICER) — Iaria R, Di Salvo T, Anitra A, Miceli C, Barra F, et al. Confirmation of the presence of a CRSF in the NICER spectrum of X 1822-371. *Astronomy & Astrophysics*. 2024 March; 683: A79. DOI: 10.1051/0004-6361/202345888 *

Neutron star Interior Composition Explorer (NICER) — Illiano G, Papitto A, Ambrosino F, Zanon AM, Zelati FC, et al. Investigating the origin of optical and X-ray pulsations of the transitional millisecond pulsar PSR J1023+0038. *Astronomy & Astrophysics*. 2023 January 1; 669: A26. DOI: 10.1051/0004-6361/202244637 *

Neutron star Interior Composition Explorer (NICER) — Illiano G, Papitto A, Marino A, Strohmayer TE, Sanna A, et al. Spectral and timing properties of the accreting millisecond X-ray pulsar IGR J17498-2921 during its 2023 outburst. *Astronomy & Astrophysics*. 2024 November 13; 691: A189. DOI: 10.1051/0004-6361/202451703

Neutron star Interior Composition Explorer (NICER) — Jaisawal GK, Bostanci ZF, Boztepe T, Guver T, Strohmayer TE, et al. A comprehensive study of thermonuclear X-ray bursts from 4U 1820–30 with NICER: Accretion disk interactions and a candidate burst oscillation. *The Astrophysical Journal*. 2024 November 1; 975(1): 67. DOI: 10.3847/1538-4357/ad794e

Neutron star Interior Composition Explorer (NICER) — Jana A, Chang HK, et al. X-ray polarization changes with the state transition in Cygnus X–1. *Monthly Notices of the Royal Astronomical Society*. 2024 February 1; 527(4): 10837–10843. DOI: 10.1093/mnras/stad3961 *

Neutron star Interior Composition Explorer (NICER) — Jayasurya K, Agrawal VK, Chatterjee R, et al. Detection of significant X-ray polarization from transient NS-LMXB XTE J1701-462 with IXPE and its implication on the coronal geometry. *Monthly Notices of the Royal Astronomical Society*. 2023 November 1; 525(3): 4657–4662. DOI: 10.1093/mnras/stad2601 *

Neutron star Interior Composition Explorer (NICER) — Ji L, Ducci L, Santangelo A, Zhang S, Suleimanov V, et al. Switches between accretion structures during flares in 4U 1901+03. *Monthly Notices of the Royal Astronomical Society*. 2020 April 21; 493(4): 5680–5692. DOI: 10.1093/mnras/staa569 *

Neutron star Interior Composition Explorer (NICER) — Jin Y, Chen X, Zhu H, Jiang Z, Wang W, et al. Broad-band noises in GX 339-4 during the 2021 outburst observed with Insight-HXMT and NICER. *Astronomy & Astrophysics*. 2025 May 12; 697: A120. DOI: 10.1051/0004-6361/202453494

Neutron star Interior Composition Explorer (NICER) — Jin Y, Chen X, Zhu HF, Jiang Z, Zhang L, et al. Wavelet analysis of low-frequency quasi-periodic oscillations in MAXI J1803-298 observed with Insight-HXMT and NICER. *Monthly Notices of the Royal Astronomical Society*. 2024 November 21; 535(1): 207–216. DOI: 10.1093/mnras/stae2387

Neutron star Interior Composition Explorer (NICER) — Kara E, Barth AJ, Cackett EM, Gelbord JM, Montano J, et al. UV–Optical Disk Reverberation Lags despite a Faint X-Ray Corona in the Active Galactic Nucleus Mrk 335. *The Astrophysical Journal*. 2023 April; 947(2): 62. DOI: 10.3847/1538-4357/acbcd3 *

Neutron star Interior Composition Explorer (NICER) — Kara E, Mehdipour M, Kriss GA, Cackett EM, Arav N, et al. AGN STORM 2. I. First results: A Change in the Weather of Mrk 817. *The Astrophysical Journal*. 2021 December 1; 922(2): 151. DOI: 10.3847/1538-4357/ac2159 *

Neutron star Interior Composition Explorer (NICER) — Karam R, Dage K, Tetarenko BE, Brumback M, Haggard D, et al. Monitoring observations of SMC X-1's excursions (moose) III. X-ray spectroscopy of a warped, precessing accretion disc. *Monthly Notices of the Royal Astronomical Society*. 2025 January 1; 536(1): 509-517. DOI: 10.1093/mnras/stae2456

Neutron star Interior Composition Explorer (NICER) — Kashyap U, Maccarone TJ, Russell TD, Ng M, Ravi S, et al. X-Ray and Radio Polarimetry of the Neutron Star Low-mass X-Ray Binary 4U 1728–34. *The Astrophysical Journal*. 2025 June 1; 985(2): 245. DOI: 10.3847/1538-4357/adceb9

Neutron star Interior Composition Explorer (NICER) — Kawamura T, Axelsson M, Done C, Takahashi T, et al. A full spectral-timing model to map the accretion flow in black hole binaries: the low/hard state of MAXI J1820+070. *Monthly Notices of the Royal Astronomical Society*. 2022 March 21; 511(1): 536–552. DOI: 10.1093/mnras/stac045 *

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Neutron star Interior Composition Explorer (NICER) — Kawamura T, Done C, Takahashi T, et al. The origin of long soft lags and the nature of the hard-intermediate state in black hole binaries. *Monthly Notices of the Royal Astronomical Society*. 2023 October 11; 525(1): 1280–1287. DOI: 10.1093/mnras/stad2338

Neutron star Interior Composition Explorer (NICER) — Kim C, Park J, Woo J, Silverman S, An H, et al. X-Ray Characterization of the Pulsar PSR J1849-0001 and Its Wind Nebula G32.64+0.53 Associated with TeV Sources Detected by H.E.S.S., HAWC, Tibet AS?, and LHAASO. *The Astrophysical Journal*. 2024 January; 960(1): 78. DOI: 10.3847/1538-4357/ad0ecd

Neutron star Interior Composition Explorer (NICER) — Kimura M, Hayashi T, Wada Y, Iwakiri WB, Sako S, et al. Evolution of the Inner Accretion Flow and the White Dwarf Spin Pulse during the 2023 Outburst in GK Persei. *The Astrophysical Journal*. 2025 June 1; 985(2): 240. DOI: 10.3847/1538-4357/adcf27

Neutron star Interior Composition Explorer (NICER) — Kimura M, Kashiyama K, Shigeyama T, Tampo Y, Yamada S, et al. MASTER OT J030227.28+191754.5: A Dwarf Nova at a Massive Oxygen–Neon White Dwarf System?. *The Astrophysical Journal*. 2023 July 10; 951(2): 124. DOI: 10.3847/1538-4357/acd933

Neutron star Interior Composition Explorer (NICER) — Kimura M, Negoro H, Yamada S, Iwakiri WB, Sako S, et al. Evolution of X-ray and optical rapid variability during the low/hard state in the 2018 outburst of MAXI J1820+070 = ASASSN-18ey. *Publications of the Astronomical Society of Japan*. 2024 November 19; 77(1): 61 -73. DOI: 10.1093/pasj/psae099

Neutron star Interior Composition Explorer (NICER) — Knight A, Ingram AR, Middleton M, et al. X-ray eclipse mapping constrains the binary inclination and mass ratio of Swift J1858.6-0814. *Monthly Notices of the Royal Astronomical Society*. 2022 August 1; 514(2): 1908–1920. DOI: 10.1093/mnras/stac1340

Neutron star Interior Composition Explorer (NICER) — Knight A, Ingram AR, van den Eijnden J, Buisson DJ, Rhodes L, et al. The false widow link between neutron star X-ray binaries and spider pulsars. *Monthly Notices of the Royal Astronomical Society*. 2023 April 11; 520(3): 3416–3435. DOI: 10.1093/mnras/stad383

Neutron star Interior Composition Explorer (NICER) — Koljonen KI, Hovatta T, et al. ALMA/NICER observations of GRS 1915+105 indicate a return to a hard state. *Astronomy & Astrophysics*. 2021 March 1; 647: A173. DOI: 10.1051/0004-6361/202039581 *

Neutron star Interior Composition Explorer (NICER) — Kowalski AF, Osten RA, Notsu Y, Tristan II, Segura A, et al. Rising Near-ultraviolet Spectra in Stellar Megaflares. *The Astrophysical Journal*. 2025 January; 978(1): 81. DOI: 10.3847/1538-4357/ad9395

Neutron star Interior Composition Explorer (NICER) — Krawczynski HS, Yuan Y, Chen AY, Hu K, Rodriguez Cavero N, et al. Evaluation of Several Explanations of the Strong X-Ray Polarization of the Black Hole X-Ray Binary 4U 1630-47. *The Astrophysical Journal Letters*. 2024 December 10; 977(1): L10. DOI: 10.3847/2041-8213/ad855c

Neutron star Interior Composition Explorer (NICER) — Krishnan S, Markowitz AG, Krumpe M, Homan D, Brogan R, et al. An X-ray flaring event and a variable soft X-ray excess in the Seyfert LCRS B040659.9–385922 as detected with eROSITA. *Astronomy & Astrophysics*. 2024 November 1; 691: A102. DOI: 10.1051/0004-6361/202349126

Neutron star Interior Composition Explorer (NICER) — Kumar R, Bhattacharyya S, Bhatt N, Misra R, et al. Estimation of spin and mass of the black hole in MAXI J1348–630 from the soft state using NICER and NuSTAR observations. *Monthly Notices of the Royal Astronomical Society*. 2022 July 11; 513(4): 4869–4874. DOI: 10.1093/mnras/stac1170 *

Neutron star Interior Composition Explorer (NICER) — Kumar R, et al. Study of Type-B QPOs Observed in Black Hole X-Ray Binary Swift J1728.9-3613. *Research in Astronomy and Astrophysics*. 2024 February; 24(3): 035001. DOI: 10.1088/1674-4527/ad1f43

Neutron star Interior Composition Explorer (NICER) — Kurpas J, Pires AM, Schwope A, Pan Z, Zhang Z, et al. A multi-wavelength view of the isolated neutron star eRASSU J065715.3+260428. *Astronomy & Astrophysics*. 2025 January 14; 12. DOI: 10.1051/0004-6361/202452353

Neutron star Interior Composition Explorer (NICER) — Kurpas J, Schwope A, Pires AM, Haberl F, et al. Detection of pulsed X-ray emission from the isolated neutron star candidate eRASSU J131716.9–402647. *Astronomy & Astrophysics*. 2024 March 1; 683: A164. DOI: 10.1051/0004-6361/202347967

Neutron star Interior Composition Explorer (NICER) — La Monaca F, Di Marco A, Ludlam RM, Bobrikova A, Poutanen J, et al. X-ray spectropolarimetric characterization of GX 340+0 in the horizontal branch: A highly inclined source? *Astronomy & Astrophysics*. 2024 November 18; 691: A253. DOI: 10.1051/0004-6361/202451966

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Lawther D, Vestergaard M, Raimundo S, Fan X, Koay JY. Flares in the Changing Look AGN Mrk 590. II: Deep X-ray observations reveal a Comptonizing inner accretion flow. *Monthly Notices of the Royal Astronomical Society*. 2025 May; 539(1): 501–541. DOI: 10.1093/mnras/staf424

Neutron star Interior Composition Explorer (NICER) — Lee Y, Caleb M, Murphy T, Lenc E, Kaplan DL, et al. The emission of interpulses by a 6.45-hour period coherent radio transient. *Nature Astronomy*. 2025 January 15; 9: 393–405. DOI: 10.1038/s41550-024-02452-z

Neutron star Interior Composition Explorer (NICER) — Li PP, Tao L, Ma RC, Ge MY, Zhao QC, et al. Broad-band noise and quasi-periodic oscillation characteristics of the X-ray pulsar RX J0440.9+4431. *Monthly Notices of the Royal Astronomical Society*. 2024 April 1; 529(2): 1187–1194. DOI: 10.1093/mnras/stae579 *

Neutron star Interior Composition Explorer (NICER) — Li PP, Tao L, Tuo Y, Ge MY, Kong LD, et al. Timing properties of the X-ray accreting pulsar RX J0440.9+4431 studied with Insight-HXMT and NICER. *Monthly Notices of the Royal Astronomical Society*. 2023 December 11; 526(3): 3637–3651. DOI: 10.1093/mnras/stad2956

Neutron star Interior Composition Explorer (NICER) — Li Z, Kuiper LM, Ge M, Falanga M, Poutanen J, et al. Broadband X-Ray Timing and Spectral Characteristics of the Accretion-powered Millisecond X-Ray Pulsar MAXIJ1816-195. *The Astrophysical Journal*. 2023 December 1; 958(2): 177. DOI: 10.3847/1538-4357/ad0296

Neutron star Interior Composition Explorer (NICER) — Lin LC, Fan J, Hu C, Takata J, Li K, et al. Investigation of a likely orbital periodicity of Nova Hercules 2021 in X-rays and ?-rays. *Monthly Notices of the Royal Astronomical Society: Letters*. 2022 November 21; 517(1): L97–L101. DOI: 10.1093/mnrasl/slac117

Neutron star Interior Composition Explorer (NICER) — Lin LC, Hu C, Takata J, Li K, Hui CY, et al. Investigation of the Timing and Spectral Properties of an Ultraluminous X-Ray Pulsar NGC 7793 P13. *The Astrophysical Journal*. 2022 January 10; 924(2): 65. DOI: 10.3847/1538-4357/ac32b9

Neutron star Interior Composition Explorer (NICER) — Lin Z, Wang Y, del Palacio S, Mendez M, Zhang S, et al. Unraveling the Hybrid Origins of the X-Ray Nonthermal Emission from IGR J17091–3624. *The Astrophysical Journal*. 2024 October; 974(1): 79. DOI: 10.3847/1538-4357/ad6b14

Neutron star Interior Composition Explorer (NICER) — Liu Z, Ryu T, Goodwin AJ, Rau A, Homan D, et al. Rapid evolution of the recurrence time in the repeating partial tidal disruption event eRASSt J045650.3-203750. *Astronomy & Astrophysics*. 2024 March 1; 683: L13. DOI: 10.1051/0004-6361/202348682

Neutron star Interior Composition Explorer (NICER) — Lucchini M, Mastroserio G, Wang J, Kara E, Ingram AR, et al. Investigating the Impact of Vertically Extended Coronae on X-Ray Reverberation Mapping. *The Astrophysical Journal*. 2023 July 1; 951(1): 19. DOI: 10.3847/1538-4357/acd24f *

Neutron star Interior Composition Explorer (NICER) — Lutovinov AA, Tsygankov SS, Mereminskiy IA, Molkov SV, Semena AN, et al. SRG/ART-XC discovery of SRGA J204318.2+443815: Towards the complete population of faint X-ray pulsars. *Astronomy & Astrophysics*. 2022 May 1; 661: A28. DOI: 10.1051/0004-6361/202141630 *

Neutron star Interior Composition Explorer (NICER) — Lyu M, Zhang G, Mendez M, Altamirano D, Mancuso GC, et al. XMM-Newton and NICER Measurement of the Rms Spectrum of the Millihertz Quasiperiodic Oscillations in the Neutron-star Low-mass X-Ray Binary 4U 1636–53. *The Astrophysical Journal*. 2020 June; 895(2): 120. DOI: 10.3847/1538-4357/ab8cbe *

Neutron star Interior Composition Explorer (NICER) — Ma R, Mendez M, Garcia F, Sai N, Zhang L, et al. A variable corona during the transition from type-C to type-B quasi-periodic oscillations in the black hole X-ray binary MAXI J1820+070. *Monthly Notices of the Royal Astronomical Society*. 2023 October 11; 525(1): 854–875. DOI: 10.1093/mnras/stad2284 *

Neutron star Interior Composition Explorer (NICER) — Ma R, Tao L, Mendez M, Zhang S, Xu Y, et al. Studies on the soft intermediate state X-ray flare of MAXI J1535-571 during its 2017 outburst. *Monthly Notices of the Royal Astronomical Society*. 2024 February 21; 528(2): 3864–3874. DOI: 10.1093/mnras/stae291 *

Neutron star Interior Composition Explorer (NICER) — Majumder S, Chatterjee R, Jayasurya K, Das S, Nandi A. First Detection of X-Ray Polarization in Galactic Ultraluminous X-Ray Pulsar Swift J0243.6+6124 with IXPE. *The Astrophysical Journal Letters*. 2024 August; 971(1): L21. DOI: 10.3847/2041-8213/ad67e5 *

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Malacaria C, Bogdanov S, Ho WC, Enoto T, Ray PS, et al. A Joint NICER and XMM-Newton View of the "Magnificent" Thermally Emitting X-Ray Isolated Neutron Star RX J1605.3+3249. *The Astrophysical Journal*. 2019 August; 880(2): 74. DOI: 10.3847/1538-4357/ab2875 *

Neutron star Interior Composition Explorer (NICER) — Malik T, Ferreira M, Agrawal BK, Providencia C, et al. Relativistic Description of Dense Matter Equation of State and Compatibility with Neutron Star Observables: A Bayesian Approach. *The Astrophysical Journal*. 2022 April 28; 930(1): 17. DOI: 10.3847/1538-4357/ac5d3c *

Neutron star Interior Composition Explorer (NICER) — Manca A, Gambino AF, Sanna A, Jaisawal GK, Di Salvo T, et al. Spectral analysis of the AMXP IGR J17591–2342 during its 2018 outburst. *Monthly Notices of the Royal Astronomical Society*. 2023 February 21; 519(2): 2309–2320. DOI: 10.1093/mnras/stac3707 *

Neutron star Interior Composition Explorer (NICER) — Manca A, Sanna A, Marino A, Di Salvo T, Mazzola SM, et al. Spectral analysis of the LMXB XTE J1810-189 with NICER data. *Monthly Notices of the Royal Astronomical Society*. 2023 November 21; 526(1): 1154–1164. DOI: 10.1093/mnras/stad2818 *

Neutron star Interior Composition Explorer (NICER) — Marino A, Barnier S, Petrucci P, Del Santo M, Malzac J, et al. Tracking the evolution of the accretion flow in MAXI J1820+070 during its hard state with the JED-SAD model. *Astronomy & Astrophysics*. 2021 December 1; 656: A63. DOI: 10.1051/0004-6361/202141146 *

Neutron star Interior Composition Explorer (NICER) — Marino A, Yang HN, Zelati FC, Rea N, Guillot S, et al. Einstein Probe Discovery of EP J005245.1-722843: A Rare Be–White Dwarf Binary in the Small Magellanic Cloud?. *The Astrophysical Journal Letters*. 2025 February 18; 980(2): L36. DOI: 10.3847/2041-8213/ad9580

Neutron star Interior Composition Explorer (NICER) — Markowitz AG, Krumpe M, Homan D, Gromadzki M, Schramm M, et al. eROSITA detection of a cloud obscuration event in the Seyfert AGN EC 04570–5206. *Astronomy & Astrophysics*. 2024 April 1; 684: A101. DOI: 10.1051/0004-6361/202347745 *

Neutron star Interior Composition Explorer (NICER) — Masterson M, Kara E, Panagiotou C, Alston W, Chakraborty J, et al. Millihertz oscillations near the innermost orbit of a supermassive black hole. *Nature*. 2025 February; 638(8050): 370–375. DOI: 10.1038/s41586-024-08385-x

Neutron star Interior Composition Explorer (NICER) — Masterson M, Kara E, Ricci C, Fabian AC, Pinto C, et al. Evolution of a Relativistic Outflow and X-Ray Corona in the Extreme Changing-look AGN 1ES 1927+654. *The Astrophysical Journal*. 2022 July 20; 934(1): 35. DOI: 10.3847/1538-4357/ac76c0 *

Neutron star Interior Composition Explorer (NICER) — Mummery A, Ingram AR, Davis S, Fabian AC. Continuum emission from within the plunging region of black hole discs. *Monthly Notices of the Royal Astronomical Society*. 2024 June 11; 531(1): 366–386. DOI: 10.1093/mnras/stae1160 *

Neutron star Interior Composition Explorer (NICER) — Mummery A, Jiang J, Fabian AC. Plunging region emission in the X-ray binary MAXI J0637-430. *Monthly Notices of the Royal Astronomical Society: Letters*. 2024 September 21; 533(1): L83–L90. DOI: 10.1093/mnrasl/slae056 *

Neutron star Interior Composition Explorer (NICER) — Mummery A, Wevers T, Saxton RD, Pasham DR. From X-rays to physical parameters: a comprehensive analysis of thermal tidal disruption event X-ray spectra. *Monthly Notices of the Royal Astronomical Society*. 2023 March 11; 519(4): 5828–5847. DOI: 10.1093/mnras/stac3798 *

Neutron star Interior Composition Explorer (NICER) — Mundo SA, Mushotzky R. Investigating the variability of Swift-BAT blazars with NICER. *Monthly Notices of the Royal Astronomical Society*. 2023 March 21; 520(1): 1044–1054. DOI: https://doi.org/10.1093/mnras/stad225 *

Neutron star Interior Composition Explorer (NICER) — Ng M, Hughes AK, Homan J, Miller JM, Pike SN, et al. X-Ray and Radio Monitoring of the Neutron Star Low-mass X-Ray Binary 1A 1744-361: Quasiperiodic Oscillations, Transient Ejections, and a Disk Atmosphere. *The Astrophysical Journal*. 2024 May 10; 966(2): 232. DOI: 10.3847/1538-4357/ad35bd *

Neutron star Interior Composition Explorer (NICER) — Nicholl M, Pasham DR, Mummery A, Guolo M, Gendreau KC, et al. Quasi-periodic X-ray eruptions years after a nearby tidal disruption event. *Nature*. 2024 October 9; 634: 804-808. DOI: 10.1038/s41586-024-08023-6

Neutron star Interior Composition Explorer (NICER) — Nizamov BA, Pshirkov MSI. Gamma-ray flares from pulsar wind nebulae in the Large Magellanic Cloud. *Monthly Notices of the Royal Astronomical Society*. 2023 April 11; 520(3): 4456–4462. DOI: 10.1093/mnras/stad410 *

List of Archived Space Station Publications

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — O'Connor BF, Pasham DR, Andreoni I, Hare J, Beniamini P, et al. Characterization of a peculiar Einstein Probe transient EP240408a: an exotic gamma-ray burst or an abnormal jetted tidal disruption event?. *The Astrophysical Journal Letters*. 2025 February 1; 979(2): L30. DOI: 10.3847/2041-8213/ada7f5 *

Neutron star Interior Composition Explorer (NICER) — Orio M, Fang K, Gallagher J, Luna GJ, Mikolajewska J. The meaning of quasi-simultaneous X-rays and gamma-ray observations of RS Oph in outburst. *Astronomische Nachrichten*. 2025 January 13; 346(1): e20240140. DOI: 10.1002/asna.20240140

Neutron star Interior Composition Explorer (NICER) — Paice JA, Gandhi P, Shahbaz T, Veledina A, Malzac J, et al. The evolution of rapid optical/X-ray timing correlations in the initial hard state of MAXI J1820+070. *Monthly Notices of the Royal Astronomical Society*. 2021 August 11; 505(3): 3452–3469. DOI: 10.1093/mnras/stab1531 *

Neutron star Interior Composition Explorer (NICER) — Painter C, Di Stefano R, Kashyap VL, Soria R, Lopez-Miralles J, et al. A possible third body in the X-ray system GRS 1747-312 and models with higher order multiplicity. *Monthly Notices of the Royal Astronomical Society*. 2024 March 21; 529(1): 245–274. DOI: 10.1093/mnras/stae164 *

Neutron star Interior Composition Explorer (NICER) — Papitto A, Di Marco A, Poutanen J, Illiano G, La Monaca F. Discovery of polarized X-ray emission from the accreting millisecond pulsar SRGA J144459.2–604207. *Astronomy & Astrophysics*. 2025 February 1; 694: A37. DOI: 10.1051/0004-6361/202451775

Neutron star Interior Composition Explorer (NICER) — Partington ER, Cackett EM, Edelson R, Horne K, Gelbord JM, et al. Connecting the X-Ray/UV Variability of Fairall 9 with NICER: A Possible Warm Corona. *The Astrophysical Journal*. 2024 December 10; 977(1): 77. DOI: 10.3847/1538-4357/ad8dc2 *

Neutron star Interior Composition Explorer (NICER) — Pasham DR, Ho WC, Alston W, Remillard RA, Ng M, et al. Evidence for a compact object in the aftermath of the extragalactic transient AT2018cow. *Nature Astronomy*. 2022 February; 6(2): 249–258. DOI: 10.1038/s41550-021-01524-8

Neutron star Interior Composition Explorer (NICER) — Pearlman AB, Scholz P, Bethapudi S, Hessels JW, Kaspi VM, et al. Multiwavelength constraints on the origin of a nearby repeating fast radio burst source in a globular cluster. *Nature Astronomy*. 2025 January; 9(1): 111–127. DOI: 10.1038/s41550-024-02386-6

Neutron star Interior Composition Explorer (NICER) — Peng H, Ge M, Weng SS, Zhao QC, Ye WT, et al. Polarized X-Rays Detected from the Anomalous X-Ray Pulsar 1E 2259+586. *The Astrophysical Journal*. 2024 January 20; 961(1): 106. DOI: 10.3847/1538-4357/ad1512

Neutron star Interior Composition Explorer (NICER) — Peng JQ, Zhang S, Chen Y, Kong LD, Wang PJ, et al. New insight into the hard X-ray emission influenced by the type I bursts observed by Insight-HXMT during the outburst of 4U 1636–536. *Astronomy & Astrophysics*. 2024 May 1; 685: A71. DOI: 10.1051/0004-6361/202347534

Neutron star Interior Composition Explorer (NICER) — Peng JQ, Zhang S, Shui Q, Chen Y, Zhang S, et al. A possible jet and corona configuration for Swift J1727.8–1613 during the hard state. *Journal of High Energy Astrophysics*. 2025 March 1; 45: 316–324. DOI: 10.1016/j.jheap.2025.01.003

Neutron star Interior Composition Explorer (NICER) — Peng JQ, Zhang S, Shui Q, Chen Y, Zhang S, et al. Insight-HXMT, NICER, and NuSTAR Views to the Newly Discovered Black Hole X-Ray Binary Swift J151857.0–572147. *The Astrophysical Journal Letters*. 2024 September 20; 973(1): L7. DOI: 10.3847/2041-8213/ad74ec

Neutron star Interior Composition Explorer (NICER) — Peng JQ, Zhang S, Shui Q, Zhang S, Kong LD, et al. NICER, NuSTAR, and Insight-HXMT Views to the Newly Discovered Black Hole X-Ray Binary Swift J1727.8-1613. *The Astrophysical Journal Letters*. 2024 January 10; 960(2): L17. DOI: 10.3847/2041-8213/ad17ca

Neutron star Interior Composition Explorer (NICER) — Peng JQ, Zhang S, Wang PJ, Zhang S, Kong LD, et al. Back to Business: SLX 1746–331 after 13 Years of Silence. *The Astrophysical Journal*. 2023 October 1; 955(2): 96. DOI: 10.3847/1538-4357/acf461

Neutron star Interior Composition Explorer (NICER) — Petri J, Guillot S, Guillemot L, Cognard I, Theureau G, et al. Constraining the magnetic field geometry of the millisecond pulsar PSR J0030+0451 from joint radio, thermal X-ray, and γ-ray emission. *Astronomy & Astrophysics*. 2023 December 1; 680: A93. DOI: 10.1051/0004-6361/202346913

Neutron star Interior Composition Explorer (NICER) — Posselt B, Pavlov GG, Ho WC, Haberl F. NICER Timing of the X-Ray Thermal Isolated Neutron Star RX J0806.4–4123. *The Astrophysical Journal*. 2024 September 10; 972(2): 197. DOI: 10.3847/1538-4357/ad5f8c

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Prabhakar G, Mandal S, Athulya MP, Nandi A. Accretion scenario of MAXI J1820+070 during 2018 outbursts with multimission observations. *Monthly Notices of the Royal Astronomical Society*. 2022 August 21; 514(4): 6102–6119. DOI: 10.1093/mnras/stac1176

Neutron star Interior Composition Explorer (NICER) — Pradhan P, Ferrigno C, Paul B, Bozzo E, El Mellah I, et al. Clumpy Wind Studies and the Nondetection of a Cyclotron Line in OAO 1657–415. *The Astrophysical Journal*. 2023 March; 945(1): 51. DOI: 10.3847/1538-4357/acb2cb

Neutron star Interior Composition Explorer (NICER) — Putha KG, Bhargava Y, Bhattacharyya S. Probing outbursts of the transient neutron star low-mass X-ray binary Aql X-1 with NICER: a study of spectral evolution. *Monthly Notices of the Royal Astronomical Society*. 2024 August 21; 532(4): 3961–3971. DOI: 10.1093/mnras/stae1711 *

Neutron star Interior Composition Explorer (NICER) — Qi L, Zheng S, Zhang J, Ge M, Li A, et al. PSR J1231–1411 Revisited: Pulse Profile Analysis of X-Ray Observation. *The Astrophysical Journal*. 2025 March; 981(2): 99. DOI: 10.3847/1538-4357/adb42f

Neutron star Interior Composition Explorer (NICER) — Qin J, Feng H, Tao L. A New Algorithm for Detecting X-Ray Shots in Cyg X-1. *The Astrophysical Journal*. 2025 February; 981(1): 17. DOI: 10.3847/1538-4357/ada774

Neutron star Interior Composition Explorer (NICER) — Rai B, Tobrej M, Ghising M, Paul BC. NuSTAR and NICER observations of X Persei. *Journal of High Energy Astrophysics*. 2025 March; 45: 265–272. DOI: 10.1016/j.jheap.2024.12.009

Neutron star Interior Composition Explorer (NICER) — Rahin R, Behar E. A NICER Viewing Angle on the Accretion Stream of Vela X-1. *The Astrophysical Journal*. 2023 June 20; 950(2): 170. DOI: 10.3847/1538-4357/acc386 *

Neutron star Interior Composition Explorer (NICER) — Rai B, Paul B, Tobrej M, Ghising M, Tamang R, et al. Luminosity dependent cyclotron line in Swift J1626.6-5156. *Journal of Astrophysics and Astronomy*. 2024 February 14; 45(1): 7. DOI: 10.1007/s12036-023-09994-0 *

Neutron star Interior Composition Explorer (NICER) — Rai B, Paul BC. Timing and spectral properties of the Be/X-ray pulsar 4U 1901+03 during its 2019 outburst. *Astrophysics and Space Science*. 2021 August 26; 366(8): 84. DOI: 10.1007/s10509-021-03971-1 *

Neutron star Interior Composition Explorer (NICER) — Rajwade KM, Stappers BW, Lyne AG, Shaw BD, Mickaliger MB, et al. Long term radio and X-ray evolution of the magnetar Swift J1818.0-1607. *Monthly Notices of the Royal Astronomical Society*. 2022 May 11; 512(2): 1687–1695. DOI: 10.1093/mnras/stac446 *

Neutron star Interior Composition Explorer (NICER) — Ramirez SU, Steiner JF, Jiang J, Garcia JA, Connors RM, et al. Self-consistent Disk-reflection Analysis of the Black Hole Candidate X-Ray Binary MAXI J1813-095 with NICER, Swift, Chandra, and NuSTAR. *The Astrophysical Journal*. 2024 November; 976(1): 38. DOI: 10.3847/1538-4357/ad7b2c

Neutron star Interior Composition Explorer (NICER) — Rani B, Kim J, Papadakis I, Gendreau KC, Masterson M, Hamaguchi K, et al. High-frequency power spectrum of active galactic nucleus NGC 4051 revealed by NICER. *The Astrophysical Journal Letters*. 2025 February; 981(1): L18. DOI: 10.3847/2041-8213/adace8

Neutron star Interior Composition Explorer (NICER) — Rankin J, La Monaca F, Di Marco A, Poutanen J, Bobrikova A, et al. X-Ray Polarized View of the Accretion Geometry in the X-Ray Binary Circinus X-1. *The Astrophysical Journal Letters*. 2024 January 20; 961(1): L8. DOI: 10.3847/2041-8213/ad1832 *

Neutron star Interior Composition Explorer (NICER) — Rawat D, Garg A, Mendez M. Detection of X-Ray Polarized Emission and Accretion-disk Winds with IXPE and NICER in the Black Hole X-Ray Binary 4U 1630-47. *The Astrophysical Journal Letters*. 2023 June; 949(2): L43. DOI: 10.3847/2041-8213/acd77b *

Neutron star Interior Composition Explorer (NICER) — Rawat D, Mendez M, Garcia F, Maggi P. Evolution of the Comptonizing medium of the black-hole candidate Swift J1727.8–1613 along the hard to hard-intermediate state transition using NICER. *Astronomy & Astrophysics*. 2025 May 23; 697: A229. DOI: 10.1051/0004-6361/202453538 *

Neutron star Interior Composition Explorer (NICER) — Ray PS, Nieder L, Clark CJ, Ransom SM, Cromartie HT, et al. Discovery, Timing, and Multiwavelength Observations of the Black Widow Millisecond Pulsar PSR J1555–2908. *The Astrophysical Journal*. 2022 March 10; 927(2): 216. DOI: 10.3847/1538-4357/ac49ef *

Neutron star Interior Composition Explorer (NICER) — Rigoselli M, Mereghetti S, Halpern JP, Gotthelf EV, Bassa C. The Proper Motion of the High Galactic Latitude Pulsar Calvera. *The Astrophysical Journal*. 2024 December 1; 976(2): 228. DOI: 10.3847/1538-4357/ad8cd6 *

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Rout SK, Baglio MC, Hughes AK, Russell DM, Bramich DM, et al. A Multi-wavelength Characterization of the 2023 Outburst of MAXI J1807+132: Manifestations of Disk Instability and Jet Emission. *The Astrophysical Journal*. 2025 July; 988(2): 153. DOI: 10.3847/1538-4357/ade14c *

Neutron star Interior Composition Explorer (NICER) — Rout SK, Munoz-Darias T, Homan J, Padilla MA, Russell DM, et al. Evolution of the Accretion Disk and Corona During the Outburst of the Neutron Star Transient MAXI J1807+132. *The Astrophysical Journal*. 2025 January 1; 978(1): 12. DOI: 10.3847/1538-4357/ad919f

Neutron star Interior Composition Explorer (NICER) — Russell TD, Del Santo M, Marino A, Segreto A, Motta SE, et al. Investigating the nature and properties of MAXI J1810-222 with radio and X-ray observations. *Monthly Notices of the Royal Astronomical Society*. 2022 July 11; 513(4): 6196–6209. DOI: 10.1093/mnras/stac1332 *

Neutron star Interior Composition Explorer (NICER) — Rutherford N, Mendes M, Svensson I, Schwenk A, Watts AL, et al. Constraining the Dense Matter Equation of State with New NICER Mass–Radius Measurements and New Chiral Effective Field Theory Inputs. *The Astrophysical Journal Letters*. 2024 August 10; 971(1): L19. DOI: 10.3847/2041-8213/ad5f02 *

Neutron star Interior Composition Explorer (NICER) — Salcedo C, Mori K, Bridges G, Hailey C, Buckley DA, et al. A Broadband X-Ray Investigation of Fast-spinning Intermediate Polar CTCV J2056–3014. *The Astrophysical Journal*. 2024 November 20; 976(1): 115. DOI: 10.3847/1538-4357/ad7feb *

Neutron star Interior Composition Explorer (NICER) — Salganik A, Tsygankov SS, Doroshenko V, Molkov SV, Lutovinov AA, et al. RX J0440.9+4431: another supercritical X-ray pulsar. *Monthly Notices of the Royal Astronomical Society*. 2023 October 1; 524(4): 5213–5224. DOI: 10.1093/mnras/stad2124 *

Neutron star Interior Composition Explorer (NICER) — Salmi T, Choudhury D, Kini Y, Riley TE, Vinciguerra S, et al. The Radius of the High-mass Pulsar PSR J0740+6620 with 3.6 yr of NICER Data. *The Astrophysical Journal*. 2024 October 20; 974(2): 294. DOI: 10.3847/1538-4357/ad5f1f *

Neutron star Interior Composition Explorer (NICER) — Salmi T, Deneva JS, Ray PS, Watts AL, Choudhury D, et al. A NICER view of PSR J1231-1411: A complex case. *The Astrophysical Journal*. 2024 November; 976(1): 58. DOI: 10.3847/1538-4357/ad81d2

Neutron star Interior Composition Explorer (NICER) — Salmi T, Vinciguerra S, Choudhury D, Watts AL, Ho WC, et al. Atmospheric Effects on Neutron Star Parameter Constraints with NICER. *The Astrophysical Journal*. 2023 October 20; 956(2): 138. DOI: 10.3847/1538-4357/acf49d *

Neutron star Interior Composition Explorer (NICER) — Sathyaprakash R, Rea N, Zelati FC, Borghese A, Pilia M, et al. Long-term Study of the 2020 Magnetar-like Outburst of the Young Pulsar PSR J1846-0258 in Kes 75. *The Astrophysical Journal*. 2024 November 20; 976(1): 56. DOI: 10.3847/1538-4357/ad8226 *

Neutron star Interior Composition Explorer (NICER) — Schwope A, Pires AM, Kurpas J, Doroshenko V, Suleimanov V, et al. Phase-resolved X-ray spectroscopy of PSR B0656+14 with SRG/eROSITA and XMM-Newton. *Astronomy & Astrophysics*. 2022 May 1; 661: A41. DOI: 10.1051/0004-6361/202141105 *

Neutron star Interior Composition Explorer (NICER) — Semena AN, Lutovinov AA, Mereminskiy IA, Tsygankov SS, Shtykovsky AE, et al. Observational constraints on the magnetic field of the bright transient Be/X-ray pulsar SXP 4.78. *Monthly Notices of the Royal Astronomical Society*. 2019 December 11; 490(3): 3355–3364. DOI: 10.1093/mnras/stz2722 *

Neutron star Interior Composition Explorer (NICER) — Shao Y, Zhou P, Li X, Zhang B, Castro-Tirado AJ, et al. GTC Optical/Near-infrared Upper Limits and NICER X-Ray Analysis of SGR J1935+2154 for the Outburst in 2022. *The Astrophysical Journal*. 2024 November 20; 976(1): 99. DOI: 10.3847/1538-4357/ad822f

Neutron star Interior Composition Explorer (NICER) — Shi Z, Wu Q, Yan Z, Lyu B, Liu H. A new variability pattern in GRS 1915+105 with NICER and Insight-HXMT observations. *Monthly Notices of the Royal Astronomical Society*. 2023 October 11; 525(1): 1431–1442. DOI: 10.1093/mnras/stad2061 *

Neutron star Interior Composition Explorer (NICER) — Shui Q, Zhang S, Peng JQ, Zhang S, Chen Y, et al. A Phase-resolved View of "Heartbeat"-like Variability in IGR J17091-3624 during the 2022 Outburst. *The Astrophysical Journal*. 2024 September; 973(2): 92. DOI: 10.3847/1538-4357/ad67cd *

Neutron star Interior Composition Explorer (NICER) — Steiner JF, Nathan E, Hu K, Krawczynski HS, Dovciak M, et al. An IXPE-led X-Ray Spectropolarimetric Campaign on the Soft State of Cygnus X-1: X-Ray Polarimetric Evidence for Strong Gravitational Lensing. *The Astrophysical Journal Letters*. 2024 July 10; 969(2): L30. DOI: 10.3847/2041-8213/ad58e4 *

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Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Stiele H, Kong AK. A journey from the hard to the soft state: How do QPOs evolve in the 2021 outburst of GX 339–4?. *Monthly Notices of the Royal Astronomical Society*. 2023 June 11; 522(1): 268–274. DOI: 10.1093/mnras/stad969 *

Neutron star Interior Composition Explorer (NICER) — Stiele H, Kong AK. NICER and Swift/XRT monitoring of the 2023 outburst of Swift J1727.7–1613. *Astronomy & Astrophysics*. 2024 November 1; 691: A268. DOI: 10.1051/0004-6361/202450657 *

Neutron star Interior Composition Explorer (NICER) — Sudha M, Ludlam RM, Altamirano D, Cackett EM, Hare J. A Spectro-temporal View of Normal Branch Oscillations in Cygnus X-2 as Seen by NICER and NuSTAR. *The Astrophysical Journal*. 2025 January 1; 978(1): 75. DOI: 10.3847/1538-4357/ad9588 *

Neutron star Interior Composition Explorer (NICER) — Sun H, Yao D, Shen L, Deng Z, Bao W, et al. Estimating 5-year rotation stability of PSR B1937+21 using NICER observations. *Acta Astronautica*. 2023 September 1; 210: 141–150. DOI: 10.1016/j.actaastro.2023.04.044 *

Neutron star Interior Composition Explorer (NICER) — Svoboda J, Dovciak M, Steiner JF, Muleri F, Ingram AR, et al. First X-Ray Polarization Measurement Confirms the Low Black Hole Spin in LMC X-3. *The Astrophysical Journal*. 2024 January 1; 960(1): 3. DOI: 10.3847/1538-4357/ad0842 *

Neutron star Interior Composition Explorer (NICER) — Takata J, Wang H-, Lin LC, Kisaka S. Efficiency of Nonthermal Pulsed Emission from Eight MeV Pulsars. *The Astrophysical Journal*. 2024 April 20; 965(2): 126. DOI: 10.3847/1538-4357/ad3213 *

Neutron star Interior Composition Explorer (NICER) — Takata J, Wang XF, Wang H-, Lin LC, Hu C, Li KL, et al. An X-Ray Study of the White Dwarf Binary AR Scorpii. *The Astrophysical Journal*. 2021 February; 907(2): 115. DOI: 10.3847/1538-4357/abd0f8 *

Neutron star Interior Composition Explorer (NICER) — Tanenia H, Garg A, Misra R, Sen S. Modeling the Energy-dependent Broadband Variability in the Black Hole Transient GX 339–4 Using AstroSat and NICER. *The Astrophysical Journal*. 2024 November 10; 975(2): 190. DOI: 10.3847/1538-4357/ad7d8b *

Neutron star Interior Composition Explorer (NICER) — Tang R, Yan D, Zhang H, Zhao QC, Tao L, et al. Insights from the Gaussian Process Method for the Fast Radio Burst–associated X-Ray Burst of SGR 1935+2154. *The Astrophysical Journal*. 2024 August 10; 971(1): 26. DOI: 10.3847/1538-4357/ad5a03 *

Neutron star Interior Composition Explorer (NICER) — Tarana A, Capitanio F, Gnarini A, Fabiani S, Ursini F, et al. X-ray spectro-polarimetry analysis of the weakly magnetized neutron star X-ray binary GX 9+1. *Astronomy & Astrophysics*. 2025 June 1; 698:A245. DOI: 10.1051/0004-6361/202554083

Neutron star Interior Composition Explorer (NICER) — Tewari S, Chatterjee S, Kumar D, Mallick R. Analyzing the dense matter equation of states in the light of the compact object HESS J1731-347. *Physical Review D*. 2025 May 6; 111(10): 103009. DOI: 10.1103/PhysRevD.111.103009 *

Neutron star Interior Composition Explorer (NICER) — Thaddaeus KJ, Steiner JF, Garraffo C, Mendez M, Zhang L. QPOML: a machine learning approach to detect and characterize quasi-periodic oscillations in X-ray binaries. *Monthly Notices of the Royal Astronomical Society*. 2023 October 1; 524(4): 4801–4818. DOI: 10.1093/mnras/stad1643 *

Neutron star Interior Composition Explorer (NICER) — Thalhammer P, Ballhausen R, Sokolova-Lapa E, Stierhof J, Zainab A, et al. The giant outburst of EXO 2030+375 - I. Spectral and pulse profile evolution. *Astronomy & Astrophysics*. 2024 August 1; 688: A213. DOI: 10.1051/0004-6361/202348594 *

Neutron star Interior Composition Explorer (NICER) — Thomas JK, Buckley DA, Charles PA, Paice JA, Potter SB, et al. Synchronous X-ray/Optical QPOs from the Black Hole LMXB MAXI J1820+070. *Monthly Notices of the Royal Astronomical Society: Letters*. 2022 April 7; 513(1): L35–L39. 10.1093/mnrasl/slab132

Neutron star Interior Composition Explorer (NICER) — Tobrej M, Rai B, Ghising M, Tamang R, Paul BC. Spectro-timing analysis of Be X-ray pulsar SMC X-2 during the 2022 outburst. *New Astronomy*. 2025 May 1; 116: 102345. DOI: 10.1016/j.newast.2024.102345

Neutron star Interior Composition Explorer (NICER) — Tomaru R, Done C, Odaka H. X-ray polarization properties of thermal-radiative disc winds in binary systems. *Monthly Notices of the Royal Astronomical Society*. 2024 January 21; 527(3): 7047–7054. DOI: 10.1093/mnras/stad3649 *

Neutron star Interior Composition Explorer (NICER) — Tsuzuki Y, Totani T, Hu C, Enoto T. Similarity to earthquakes again: periodic radio pulses of the magnetar SGR 1935+2154 are accompanied by aftershocks like fast radio bursts. *Monthly Notices of the Royal Astronomical Society*. 2024 May 11; 530(2): 1885–1893. DOI: 10.1093/mnras/stae965 *

List of Archived Space Station Publications

Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Ursini F, Gnarini A, Bianchi S, Bobrikova A, Capitanio F, et al. X-ray spectropolarimetry of the bright atoll Serpens X-1. *Astronomy & Astrophysics*. 2024 October 1; 690: A200. DOI: 10.1051/0004-6361/202451584 *

Neutron star Interior Composition Explorer (NICER) — Uttley P, Malzac J. Large and complex X-ray time lags from black hole accretion discs with compact inner coronae. *Monthly Notices of the Royal Astronomical Society*. 2025 February 1; 536(4): 3284–3307. DOI: 10.1093/mnras/stae2514 *

Neutron star Interior Composition Explorer (NICER) — van den Eijnden J, Fender RP, Miller-Jones JC, Russell TD, Saikia P, et al. MeerKAT radio observations of the neutron star low-mass X-ray binary Cen X–4 at low accretion rates. *Monthly Notices of the Royal Astronomical Society*. 2022 October 21; 516(2): 2641–2652. DOI: 10.1093/mnras/stac2392 *

Neutron star Interior Composition Explorer (NICER) — Vinciguerra S, Salmi T, Watts AL, Choudhury D, Riley TE, et al. An Updated Mass–Radius Analysis of the 2017–2018 NICER Data Set of PSR J0030+0451. *The Astrophysical Journal*. 2024 January 20; 961(1): 62. DOI: 10.3847/1538-4357/acfb83 *

Neutron star Interior Composition Explorer (NICER) — Wang J, Kara E, Garcia JA, Altamirano D, Belloni TM, et al. The 2022 Outburst of IGR J17091–3624: Connecting the Exotic GRS 1915+105 to Standard Black Hole X-Ray Binaries. *The Astrophysical Journal*. 2024 March 1; 963(1): 14. DOI: 10.3847/1538-4357/ad1595 *

Neutron star Interior Composition Explorer (NICER) — Wang P, Li J, Ji L, Hou X, Gügercinoglu E, et al. X-Ray Hardening Preceding the Onset of SGR 1935+2154's Radio Pulsar Phase. *The Astrophysical Journal Supplement Series*. 2024 December; 275(2): 39. DOI: 10.3847/1538-4365/ad7c3f *

Neutron star Interior Composition Explorer (NICER) — Wang PJ, Chen Y, Ji L, Zhang S, Zhang S, Kong LD, et al. Burst-recurrence properties revealed with Insight-HXMT and NICER for the newly discovered accreting millisecond pulsar MAXI J1816–195. *Astronomy & Astrophysics*. 2024 September 1; 689: A47. DOI: 10.1051/0004-6361/202348352 *

Neutron star Interior Composition Explorer (NICER) — Wang PJ, Kong LD, Chen Y, Zhang S, Zhang S, et al. The 2018 failed outburst of H 1743–322: Insight-HXMT, NuSTAR, and NICER views. *Monthly Notices of the Royal Astronomical Society*. 2022 May 21; 512(3): 4541–4555. DOI: 10.1093/mnras/stac773 *

Neutron star Interior Composition Explorer (NICER) — Wang S, Kawai N, Shidatsu M, Matsuoka Y. Transition luminosities of Galactic black hole transients with Swift/XRT and NICER/XTI observations. *Publications of the Astronomical Society of Japan*. 2023 December 1; 75(6): 1072–1094. DOI: 10.1093/pasj/psad057 *

Neutron star Interior Composition Explorer (NICER) — Wang Y, Baldi R, del Palacio S, Guolo M, Yang X, et al. The radio detection and accretion properties of the peculiar nuclear transient AT 2019avd. *Monthly Notices of the Royal Astronomical Society*. 2023 April 1; 520(2): 2417–2435. DOI: 10.1093/mnras/stad101 *

Neutron star Interior Composition Explorer (NICER) — Wang Y, Ji L, Zhang S, Mendez M, Qu J, et al. The Evolution of the Broadband Temporal Features Observed in the Black-hole Transient MAXI J1820+070 with Insight-HXMT. *The Astrophysical Journal*. 2020 June 10; 896(1): 33. DOI: 10.3847/1538-4357/ab8db4 *

Neutron star Interior Composition Explorer (NICER) — Wang Y, Pasham DR, Altamirano D, Gúrpide A, Segura NC, et al. Rapid Dimming Followed by a State Transition: A Study of the Highly Variable Nuclear Transient AT 2019avd over 1000+ Days. *The Astrophysical Journal*. 2024 February 10; 962(1): 78. DOI: 10.3847/1538-4357/ad182b *

Neutron star Interior Composition Explorer (NICER) — West BF, Becker P, Vasilopoulous G. Theoretical Analysis of the RX J0209.6-7427 X-Ray Spectrum during a Giant Outburst. *The Astrophysical Journal Letters*. 2024 May 1; 966(1): L5. DOI: 10.3847/2041-8213/ad3b92 *

Neutron star Interior Composition Explorer (NICER) — Xiao H, Ji L, Tsygankov SS, Chen Y, Zhang S, et al. A Systematic Study of Millihertz Quasiperiodic Oscillations in GS 1826–238. *The Astrophysical Journal*. 2025 March; 982(2): 180. DOI: 10.3847/1538-4357/adbcaa

Neutron star Interior Composition Explorer (NICER) — Xie F, Wong J, La Monaca F, Romani R, Heyl J, et al. First Detection of Polarization in X-Rays for PSR B0540-69 and Its Nebula. *The Astrophysical Journal*. 2024 February; 962(1): 92. DOI: 10.3847/1538-4357/ad17ba *

Neutron star Interior Composition Explorer (NICER) — Yang J, Garcia F, del Palacio S, Spencer R, Paragi Z, et al. The innermost jet in the hidden ultra-luminous X-ray source Cygnus X-3. *Monthly Notices of the Royal Astronomical Society: Letters*. 2023 November 21; 526(1): l1–l7. DOI: 10.1093/mnrasl/slad111 *

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(Listed by category and alphabetically)

Neutron star Interior Composition Explorer (NICER) — Yao Y, Guolo M, Tombesi F, Li R, Gezari S, et al. Subrelativistic Outflow and Hours-timescale Large-amplitude X-Ray Dips during Super-Eddington Accretion onto a Low-mass Massive Black Hole in the Tidal Disruption Event AT2022lri. *The Astrophysical Journal*. 2024 November; 976(1): 34. DOI: 10.3847/1538-4357/ad7d93

Neutron star Interior Composition Explorer (NICER) — Yao Y, Lu W, Harrison FA, Kulkarni SR, Gezari S, et al. The On-axis Jetted Tidal Disruption Event AT2022cmc: X-Ray Observations and Broadband Spectral Modeling. *The Astrophysical Journal*. 2024 April 10; 965(1): 39. DOI: 10.3847/1538-4357/ad2b6b *

Neutron star Interior Composition Explorer (NICER) — Yoshitake T, Shidatsu M, Ueda Y, Nogami D, Murata KL, et al. Evolution of accretion disk structure of the black hole X-ray binary MAXI J1820+070 during the rebrightening phase. *Publications of the Astronomical Society of Japan*. 2024 April 1; 76(2): 251–264. DOI: 10.1093/pasj/psae005 *

Neutron star Interior Composition Explorer (NICER) — Yu W, Li Z, Lu Y, Pan YY, Yang X, et al. NICER views moderate, strong, and extreme photospheric expansion bursts from the ultracompact X-ray binary 4U 1820–30. *Astronomy & Astrophysics*. 2024 March 1; 683: A93. DOI: 10.1051/0004-6361/202348195 *

Neutron star Interior Composition Explorer (NICER) — Yu Z, Kochanek CS, Mathur S, Auchettl K, Grupe D, et al. An X-ray view of the ambiguous nuclear transient AT2019pev. *Monthly Notices of the Royal Astronomical Society*. 2022 October 1; 515(4): 5198–5210. DOI: 10.1093/mnras/stac2073 *

Neutron star Interior Composition Explorer (NICER) — Yu-Cong F, Lin L, Ming-Yu G, Enoto T, Hu C, et al. The Timing and Spectral Properties of the 2022 Outburst of SGR J1935+2154 Observed with NICER. *The Astrophysical Journal*. 2025 February; 980(1): 99. DOI: 10.3847/1538-4357/ada936

Neutron star Interior Composition Explorer (NICER) — Yu ZL, Zhang S, Zhang S, Li X, Chen Y, et al. The correlation between dip width and peak flux in Cir X-1. *Astronomy & Astrophysics*. 2024 October 1; 690: A279. DOI: 10.1051/0004-6361/202450012

Neutron star Interior Composition Explorer (NICER) — Zane S, Taverna R, González-Caniulef D, Muleri F, Turolla R, et al. A Strong X-Ray Polarization Signal from the Magnetar 1RXS J170849.0-400910. *The Astrophysical Journal Letters*. 2023 February 20; 944(2): L27. DOI: 10.3847/2041-8213/acb703 *

Neutron star Interior Composition Explorer (NICER) — Zdziarski AA, Banerjee S, Chand S, Dewangan GC, Misra R, et al. Black Hole Spin Measurements in LMC X-1 and Cyg X-1 Are Highly Model Dependent. *The Astrophysical Journal*. 2024 February 20; 962(2): 101. DOI: 10.3847/1538-4357/ad1b60 *

Neutron star Interior Composition Explorer (NICER) — Zdziarski AA, Chand S, Banerjee S, Szanecki M, Janiuk A, et al. What Is the Black Hole Spin in Cyg X-1?. *The Astrophysical Journal Letters*. 2024 May 20; 967(1): L9. DOI: 10.3847/2041-8213/ad43ed *

Neutron star Interior Composition Explorer (NICER) — Zhang L, Altamirano D, Uttley P, Garcia F, Mendez M, et al. NICER uncovers the transient nature of the type-B quasi-periodic oscillation in the black hole candidate MAXI J1348-630. *Monthly Notices of the Royal Astronomical Society*. 2021 August 11; 505(3): 3823–3843. DOI: 10.1093/mnras/stab1553 *

Neutron star Interior Composition Explorer (NICER) — Zhang Z, Bambi C, Liu H, Jiang J, Shi F, et al. Variable Ionized Disk Winds in MAXI J1803-298 Revealed by NICER. *The Astrophysical Journal*. 2024 November 1; 975(1): 22. DOI: 10.3847/1538-4357/ad7b29

Neutron star Interior Composition Explorer (NICER) — Zhang Z, Liu H, Rawat D, Bambi C, Misra R, et al. Evolution of QPOs in GX 339–4 and EXO 1846–031 with Insight-HXMT and NICER. *The Astrophysical Journal*. 2024 August; 971(2): 148. DOI: 10.3847/1538-4357/ad5a00 *

Neutron star Interior Composition Explorer (NICER) — Zhou M, Grinberg V, Santangelo A, Bambi C, Bu Q, et al. Dimming GRS 1915+105 observed with NICER and Insight--HXMT. *Astronomy & Astrophysics*. 2025 February 5; 694(A104): 13pp. DOI: 10.1051/0004-6361/202451558

Neutron star Interior Composition Explorer (NICER) — Zhu H, Wang W. Estimating the black hole spin for the X-ray binary MAXI J1727–203 based on Insight-HXMT. *The Astrophysical Journal*. 2025 February 20; 980(2): 237. DOI: 10.3847/1538-4357/adae8b

Neutron star Interior Composition Explorer (NICER) — Zoghbi A, Miller JM. Measuring the Soft Excess Region Size Relative to the Corona in Active Galactic Nuclei with NICER. *The Astrophysical Journal*. 2023 November 10; 957(2): 69. DOI: https://doi.org/10.3847/1538-4357/acfb85 *

List of Archived Space Station Publications

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Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Asai K, Mihara T, Sakai K, Kubota A. X-ray Iron absorption line in Swift J1858.6-0814. *Publications of the Astronomical Society of Japan*. 2024 February 7; 76(1): 98–102. DOI: 10.1093/pasj/psad082 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Boztepe T, Guver T, Devecioglu EE, Speicher J, Serino M, et al. The 2020 Superburst of 4U 1608–522 and its impact on the accretion disk. Monthly *Notices of the Royal Astronomical Society*. 2025 October; 543(2): 1146–1157. DOI: 10.1093/mnras/staf1502

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Chhotaray B, Naik S, Jaisawal GK, Ahuja G. Optical and X-ray studies of the Be/X-ray binary IGR J06074+2205. *Monthly Notices of the Royal Astronomical Society*. 2024 November 1; 534(3): 2830-2847. DOI: 10.1093/mnras/stae2282

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Jaisawal GK, Chenevez J, Strohmayer TE, Schatz H, in't Zand JJ, et al. On the origin of spectral features observed during thermonuclear X-ray bursts and in the aftermath emission of a long burst from 4U 1820–30. *The Astrophysical Journal*. 2025 June; 986(1): 16. DOI: 10.3847/1538-4357/adcc24

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Lu Y, Li Z, Yu W, Pan YY, Falanga M. Discovery of a long thermonuclear X-ray burst from the ultracompact binary 4U 1850–087. *The Astrophysical Journal*. 2024 July; 969(1): 15. DOI: 10.3847/1538-4357/ad4d86 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Majumder S, Kushwaha A, Das S, Nandi A. First detection of X-ray polarization in thermal state of LMC X-3: spectro-polarimetric study with IXPE. *Monthly Notices of the Royal Astronomical Society: Letters*. 2024 January 1; 527(1): L76–L81. DOI: 10.1093/mnrasl/slad148 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Mandal M, Pal S. Temporal and spectral study of the X-ray pulsar 2S 1553–542 during the 2021 outburst. *Journal of Astrophysics and Astronomy*. 2023 June 20; 44(2): 60. DOI: 10.1007/s12036-023-09956-6 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Mandal M, Pal S, Jaisawal GK, Lohfink A, Naik S et al. Probing thermonuclear bursts and X-ray reflection features in Aql X-1 during 2024 outburst. *Journal of High Energy Astrophysics*. 2025 July 1; 47: 100387. DOI: 10.1016/j.jheap.2025.100387

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Mandal M, Saha D, Pal S, Manna A. Multi-wavelength observation of MAXI J1348–630 during the outburst in 2019. *Astrophysics and Space Science*. 2024 February 5; 369(2): 18. DOI: 10.1007/s10509-024-04280-z *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Mandal M, Sharma R, Pal S, Jaisawal GK, Gendreau KC et al. Probing spectral and timing properties of the X-ray pulsar RX J0440.9+4431 in the giant outburst of 2022–2023. *Monthly Notices of the Royal Astronomical Society*. 2023 November 21; 526(1): 771–781. DOI: 10.1093/mnras/stad2767 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Mastroserio G, De Marco B, Baglio MC, Carotenuto F, Fabiani S, et al. X-Ray and Optical Polarization Aligned with the Radio Jet Ejecta in GX 339–4. *The Astrophysical Journal Letters*. 2025 January 3; 978(2): L19. DOI: 10.3847/2041-8213/ad9913

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Moutard DL, Ludlam RM, Cackett EM, Garcia JA, Miller JM, et al. A view of the long-term spectral behavior of ultracompact X-ray binary 4U 0614+091. *The Astrophysical Journal*. 2024 October; 975(1): 68. DOI: 10.3847/1538-4357/ad794d

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Nandi A, Das S, Majumder S, Katoch T, Antia HM et al. Discovery of evolving low-frequency QPOs in hard X-rays (~100 keV) observed in black hole Swift J1727.8-1613 with AstroSat. *Monthly Notices of the Royal Astronomical Society*. 2024 June 11; 531(1): 1149–1157. DOI: 10.1093/mnras/stae1208 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Prakash V, Agrawal VK, Vinodkumar AM. First spectro-polarimetric study of the neutron star low-mass X-ray binary GX 9+1. *Monthly Notices of the Royal Astronomical Society*. 2025 June 21; 540(2): 1578–1585. DOI: 10.1093/mnras/staf821

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Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Shui Q, Zhang S, Peng JQ, Zhang S, Chen Y, et al. Phase-resolved Spectroscopy of Low-frequency Quasiperiodic Oscillations from the Newly Discovered Black Hole X-Ray Binary Swift J1727.8-1613. *The Astrophysical Journal*. 2024 September; 973(1): 59. DOI: 10.3847/1538-4357/ad676a *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Thomas JK, Charles PA, Buckley DA, Kotze MM, Lasota J, et al. Large optical modulations during 2018 outburst of MAXI J1820+070 reveal evolution of warped accretion disc through X-ray state change. *Monthly Notices of the Royal Astronomical Society*. 2022 January 1; 509(1): 1062–1074. DOI: 10.1093/mnras/stab3033 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — van den Eijnden J, Degenaar N, Russell TD, Miller-Jones JC, Rouco Escorial A, et al. Radio monitoring of transient Be/X-ray binaries and the inflow–outflow coupling of strongly magnetized accreting neutron stars. *Monthly Notices of the Royal Astronomical Society*. 2022 November 11; 516(4): 4844–4861. DOI: 10.1093/mnras/stac2518 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — van den Eijnden J, Rouco Escorial A, Alfonso-Garzon J, Miller-Jones JC, Kretschmar P, et al. VLA monitoring of LS V +44 17 reveals scatter in the X-ray–radio correlation of Be/X-ray binaries. *Monthly Notices of the Royal Astronomical Society*. 2024 January 11; 527(2): 4260–4271. DOI: 10.1093/mnras/stad3390 *

Neutron star Interior Composition Explorer, Monitor of All-sky X-ray Image (NICER, MAXI) — Yorgancioglu ES, Bu Q, Santangelo A, Tao L, Davis S, et al. Spin measurement of 4U 1543–47 with Insight-HXMT and NICER from its 2021 outburst - A test of accretion disk models at high luminosities. *Astronomy & Astrophysics*. 2023 September 1; 677: A79. DOI: 10.1051/0004-6361/202346511 *

Space Test Program - Houston 9 - Falcon - Electric Propulsion Electrostatic Analyzer Experiment (STP-H9-Falcon-EPEE) — Maldonado CA, Ulrich R, Moran K, Potter K, Castro L, et al. Initial on-orbit results from the Electric Propulsion Electrostatic Analyzer Experiment (ÈPÈE). *AIAA SCITECH 2025 Forum,* Orlando, FL; 2025 January 6–10. 17pp. DOI: 10.2514/6.2025-2547

Space Test Program - Houston 9 - Glowbug Gamma-Ray Transient Localizer (STP-H9-Glowbug) — Woolf RS, Grove J, Kerr M, Cheung C, Davis JM, et al. On-orbit performance of Glowbug, a telescope on the ISS for gamma-ray transients. *Hard X-Ray, Gamma-Ray, and Neutron Detector Physics XXVI*, San Diego, CA; 2024 October 8. 8-21. DOI: 10.1117/12.3029888

STP-H5-Lightning Imaging Sensor (STP-H5 LIS) — Gautam A, Singh V, Gautam AS, Kumar PR, Soni PS, et al. Variation of Surface Pollutants and Their Influence on Lightning Development in the Urban Cities of Northern India. *Environmental Quality Management*. 2025 January 27; 34(3): e70035. DOI: 10.1002/tqem.70035

STP-H5-Lightning Imaging Sensor (STP-H5 LIS) — Kolinska A, Kolmasova I, Price C, Santolik O. Lightning activity over central Europe in years 2017–2022 (analysis of ISS-LIS data). *25th EGU General Assembly, EGU23*, Vienna, Austria; 2023 May. EGU-3546. DOI: 10.5194/egusphere-egu23-3546 *

STP-H5-Lightning Imaging Sensor (STP-H5 LIS) — Singh R, Singh V, Gautam AS, Kumar S, Singh K, et al. Temporal and Spatial Variations in Lightning Activity and Meteorological Parameters Across the Indian Himalayan Region and Indo-Gangetic Plains. *Asia-Pacific Journal of Atmospheric Sciences*. 2025 February 26; 61(2): 8. DOI: 10.1007/s13143-025-00391-x

Stratospheric Aerosol and Gas Experiment III-ISS (SAGE III-ISS) — Knowland KE, Wales PA, Wargan K, Weir B, Pawson S, et al. Stratospheric water vapor beyond NASA's Aura MLS: Assimilating SAGE III/ISS profiles for a continued climate record. *Geophysical Research Letters*. 2025 April 28; 52(8): e2024GL112610. DOI: 10.1029/2024GL112610

Stratospheric Aerosol and Gas Experiment III-ISS (SAGE III-ISS) — Sofieva V, Rozanov A, Szelag M, Retscher C, Damadeo RP, et al. CREST: a Climate Data Record of Stratospheric Aerosols. *Earth System Science Data*. 2024 November 12; 16(11): 5227-5241. DOI: 10.5194/essd-16-5227-2024

Educational and Cultural Activities

CalliopEO (Calliope Mini in Space) — Rienow A, Dedring N. Microcontrollers in space and in the classroom – The "CalliopE" experiment. In: *Innovation and cooperation on the way to the All Electric Society: Emergences for new business processes*; 2022. DOI: 10.1007/978-3-658-38706-8_7

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Sally Ride Earth Knowledge Acquired by Middle School Students (Sally Ride EarthKAM) — Dodson H, Levin P, Ride S, Souviney R. The EarthKAM project: creating space imaging tools for teaching and learning. *Computers & Geosciences*. 2000 July 1; 26(6): 683–691. DOI: 10.1016/S0098-3004(99)00104-1

Sally Ride Earth Knowledge Acquired by Middle School Students (Sally Ride EarthKAM) — Mah GR. Follow-Ons to the KidSAT/EarthKAM student remote sensing program. *AIP Conference Proceedings*. 2000 January 19; 504(1): 534–539. DOI: 10.1063/1.1302534

Human Research

Advanced Resistive Exercise Device, Cycle Ergometer with Vibration Isolation and Stabilization System, Quantitative CT and MRI-based Modeling Assessment of Dynamic Vertebral Strength and Injury Risk Following Long-Duration Spaceflight (ARED, CEVIS, Vertebral Strength) — Poveda L, Dash S, Madrid D, Devane K, Lenchik L, et al. Thoracolumbar spine muscle size and composition changes in long-duration space missions. *Life Sciences in Space Research*. 2025 February; 44: 1-8. DOI: 10.1016/j.lssr.2024.11.003

Assessment of Operator Proficiency Following Long-Duration Space Flight (Manual Control) — Moore ST, Sims TR, Dilda V, MacDougall HG. Long-duration spaceflight adversely affects astronaut piloting performance. *Scientific Reports*. 2024 October 11; 14(1): 23839. DOI: 10.1038/s41598-024-73798-7

Biochemical Profile, International Space Station Medical Monitoring (Biochem Profile, ISS Medical Monitoring) — Lee SM, Ribeiro LC, Martin DS, Laurie SS, Zwart SR et al. Arterial structure and function in the years after long-duration spaceflight. *Journal of Applied Physiology*. 2025 June; 138(6): 1474-1488. DOI: 10.1152/japplphysiol.00264.2024

BioFabrication Facility Assembled Next-gen Development of Collagenous Allograft Meniscal Prosthetics aboard the International Space Station (BFF-Meniscus-2) — Klarmann GJ, Rogers A, Gilchrist KH, Ho VB. 3D bioprinting meniscus tissue onboard the International Space Station. *Life Sciences in Space Research*. 2024 November; 43: 82-91. DOI: 10.1016/j.lssr.2024.09.004

Bodies In the Space Environment (BISE) — Harris LR, Jorges B, Bury N, McManus M, Bansal A, et al. Can visual acceleration evoke a sensation of tilt? *Experimental Brain Research*. 2025 February 17; 243(3): 68. DOI: 10.1007/s00221-025-07023-w

Effect of Gravitational Context on EEG Dynamics (Neurospat) — Quivira-Lopesino A, Sevilla-Garcia M, Cuesta P, Pusil S, Bruna R, et al. Changes of EEG beta band power and functional connectivity during spaceflight: a retrospective study. *Scientific Reports*. 2025 April 18; 15(1): 13399. DOI: 10.1038/s41598-025-96897-5

Epigenetic Adaptation of the Immune System to Prolonged Orbital Spaceflights (Epigenetic Adaptation) — Fullstone TL, Fischer LF, Bohmeier M, Frings-Meuthen P, Crucian BE, et al. Epigenomic profiling of immune cell subtypes reveals H3K27ac-marked stress signatures after long-duration spaceflight. *Scientific Reports*. 2025 September 12; 15(1):32445. DOI: 10.1038/s41598-025-17930-1

Fluid Shifts Before, During and After Prolonged Space Flight and Their Association with Intracranial Pressure and Visual Impairment, Prospective Observational Study of Ocular Health in ISS Crews (Fluid Shifts, Ocular Health) — Svoronos AA, O'Grady CS, Walker E, Afshari NA, Macias BR et al. Analysis of Spaceflight-Associated Biometric and Refractive Changes in Astronauts. *American Journal of Ophthalmology*. 2025 August; 276: 146-156. DOI: 10.1016/j.ajo.2025.04.001

Functional Immune Alterations, Latent Herpesvirus Reactivation, Physiological Stress and Clinical Incidence Onboard the International Space Station (Functional Immune) — Rithidech K, Mohallem R, Aryal U, Peanlikhit T, Crucian BE, et al. Effects of the space environment and re-adaptation to Earth's gravity on astronauts' plasma proteome. *Life Sciences in Space Research*. 2025 September 9; epub:10pp. DOI: 10.1016/j.lssr.2025.09.001

GeneLAB — Camera A, Tabetah M, Castañeda V, Kim J, Galsinh AS, et al. Aging and putative frailty biomarkers are altered by spaceflight. *Scientific Reports*. 2024 June 11; 14(1): 13098. DOI: 10.1038/s41598-024-57948-5 *

Genome and Epigenome Analysis of Circulating Nucleic Acid-based Liquid Biopsy, Human Exploration Research Opportunities - Differential Effects on Homozygous Twin Astronauts Associated with Differences in Exposure to Spaceflight Factors (Cell-Free Epigenome, Twins Study) — Barcenilla BB, Rivero R, Lynch A, Cromer W, Gong J, et al. Feeding the cosmos: tackling personalized space nutrition and the leaky gut challenge. *npj Microgravity*. 2025 July 18; 11(1): 45. DOI: 10.1038/s41526-025-00490-z

List of Archived Space Station Publications

Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

Incidence of Latent Virus Shedding During Space Flight, International Space Station Summary of Research Performed (Latent Virus, ISS Summary of Research) — Diak DM, Crucian BE, Nelman-Gonzalez MA, Mehta SK. Saliva diagnostics in spaceflight virology studies - A review. *Viruses*. 2024 December 12; 16(12): 1909. DOI: 10.3390/v16121909

International Space Station Internal Radiation Monitoring (ISS Internal Radiation Monitoring) — Bondarenko VA, Mitrikas VG. [Additional absorbed dose from solar proton events on the ISS]. *Aviakosmicheskaia i Ekologicheskaia Meditsina (Aerospace and Environmental Medicine)*. 2024 January; 58(5): 66-71. DOI: 10.21687/0233-528X-2024-58-5-66-71 *†

International Space Station Medical Monitoring (ISS Medical Monitoring) — Del Fabbro M, Khijmatgar S, Vandenberghe B, Kijak E, Kulesa-Mrowiecka M, et al. Oral health of astronauts in short- and long-term missions in space. *Aerospace Medicine and Human Performance*. 2025 February; 96(2): 168–179. DOI: 10.3357/AMHP.6372.2025

International Space Station Medical Monitoring (ISS Medical Monitoring) — Fomina EV, Romanov PV, Burakova AA, Ganicheva AA, Senatorova NA, et al. [A new experience in the development of medical support elements for moon missions in short-term orbital missions]. *Aviakosmicheskaia i Ekologicheskaia Meditsina (Aerospace and Environmental Medicine)*. 2024 January; 58(4): 5-14. DOI: 10.21687/0233-528X-2024-58-5-5-14 *†

International Space Station Medical Monitoring (ISS Medical Monitoring) — Khan F, Ansingkar K, Dongre R, Mehdi Z, Dhanda AK, et al. Congestion and Sinonasal Illness in Outer Space: A Study on the International Space Station. *Laryngoscope Investigative Otolaryngology*. 2025 August; 10(4): e70229. DOI: 10.1002/lio2.70229

International Space Station Medical Monitoring (ISS Medical Monitoring) — Lee R, Ong J, Waisberg E, Lee AG. Spaceflight associated dry eye syndrome (SADES): Outflow biophysics and infection risk. *Journal of Space Safety Engineering*. 2025 June; 12(2): 377-380.

International Space Station Medical Monitoring (ISS Medical Monitoring) — Moreno-Villanueva M, Jimenez-Chavez LE, Krieger SS, Ding L, Zhang Y, et al. Transcriptomics analysis reveals potential mechanisms underlying mitochondrial dysfunction and T cell exhaustion in astronauts' blood cells in space. *Frontiers in Immunology*. 2025 January 19; 15: 16pp. DOI: 10.3389/fimmu.2024.1512578.

International Space Station Medical Monitoring (ISS Medical Monitoring)— Ong J, Mader TH, Gibson CR, Suh A, Panzo N, et al. The ocular surface during spaceflight: Post-mission symptom report, extraterrestrial risks, and in-flight therapeutics. *Life Sciences in Space Research*. 2025 August; 46: 169-186. DOI: 10.1016/j.lssr.2025.05.005

International Space Station Medical Monitoring (ISS Medical Monitoring) — Serova AV, Zhuravleva OA, Rykova MP, Antropova EN, Markin AA. [Morphofunctional status of cosmonauts' erythrocytes after missions to the international space station of varying duration]. *Aviakosmicheskaia i Ekologicheskaia Meditsina (Aerospace and Environmental Medicine)*. 2024; 58(4): 25-31. DOI: 10.21687/0233-528X-2024-58-4-25-31 *†

International Space Station Medical Monitoring (ISS Medical Monitoring) — Warthen KG, Sater SH, Kramer LA, Hasan KM, Williams MA, et al. Brain and cerebrospinal fluid 3D center of mass shift after spaceflight. *npj Microgravity*. 2025 May 8; 11(1): 14. DOI: 10.1038/s41526-025-00468-x

International Space Station Summary of Research Performed (ISS Summary of Research) — Jacob P, Oertlin C, Baselet B, Westerberg LS, Frippiat J, et al. Next generation of astronauts or ESA astronaut 2.0 concept and spotlight on immunity. *npj Microgravity*. 2023 June 28; 9(1): 1-9. DOI: 10.1038/s41526-023-00294-z *

International Space Station Summary of Research Performed (ISS Summary of Research) — Jain V, Chuva de Sousa Lopes SM, Benotmane MA, Verratti V, Mitchell RT, et al. Human development and reproduction in space-a European perspective. *npj Microgravity*. 2023 March 27; 9(1): 24. DOI: 10.1038/s41526-023-00272-5 *

Monitoring the Cellular Immunity by In Vitro Delayed Type Hypersensitivity Assay on the ISS (Immunity Assay) — Buchheim J, Feuerecker M, Balsamo M, Vukich M, Van Walleghem M, et al. Monitoring functional immune responses with a cytokine release assay: ISS flight hardware design and experimental protocol for whole blood cultures executed under microgravity conditions. *Frontiers in Physiology*. 2024 January 15; 14: DOI: 10.3389/fphys.2023.1322852 *

Muscle Tone in Space (Myotones) — Muckelt PE, Warner MB, Cheliotis-James T, Muckelt R, Hastermann M, et al. Protocol and reference values for minimal detectable change of MyotonPRO and ultrasound imaging measurements of muscle and subcutaneous tissue. *Scientific Reports*. 2022 August 11; 12(1): 13654. DOI: 10.1038/s41598-022-17507-2

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(Listed by category and alphabetically)

Nerve Growth Factor — Monici M, Basile V, Bellik L, Fusi F, Marziliano N, et al. Does the exposure to microgravity affect dendritic cell maturation from monocytes?. *Microgravity Science and Technology*. 2007 September; 19(5-6): 187-190. DOI: 10.1007/BF02919479 *

Physiological Factors Contributing to Postflight Changes in Functional Performance, Recovery of Functional Sensorimotor Performance Following Long Duration Space Flight, Study of the Individual Features of the Psychological and Physiological Regulator of the State and Reliability of Work Performance in Crewmembers in Long-Term Spaceflight, Study of the Individual Features of the Psychological and Physiological Regulator of the State and Reliability of Work Performance in Crewmembers in Long-Term Spaceflight (Functional Task Test, Field Test, Standard Measures, Pilot-Deyatelnost, Pilot-Regulyatsia) — Lee SM, Miller A, Ribeiro LC, Rosenberg MJ, Miller CA, et al. Cardiovascular responses to standing with and without lower body compression garments after long-duration spaceflight. *Journal of Applied Physiology*. 2025 July 1; 139(1): 70-80. DOI: 10.1152/japplphysiol.00646.2024

Pille-MKS: Determine the Value of the Accumulated Radiation Dose in a Visiting Crewmember (Pille-ISS) — Pinczes P, Hirn A, Apathy I, Deme S, Inozemtsev KO, et al. Dose measurements with the Pille-ISS thermoluminescent dosimeter system during extravehicular activities (2004-2022). *Life Sciences in Space Research*. 2025 February; 44: 58-63. DOI: 10.1016/j.lssr.2024.12.005

Spaceflight Effects on Neurocognitive Performance (NeuroMapping) — Tays GD, Hupfeld KE, McGregor HR, Banker LA, DeDios YE, et al. The microgravity environment affects sensorimotor adaptation and its neural correlates. *Cerebral Cortex*. 2025 January 4; 35(2): bhae502. DOI: 10.1093/cercor/bhae502

Spaceflight Standard Measures (Standard Measures) — Dev SI, Khader AM, Begerowski SR, Anderson SR, Clement GR, et al. Cognitive performance in ISS astronauts on 6-month low earth orbit missions. *Frontiers in Physiology*. 2024 November 20; 15: 1451269. DOI: 10.3389/fphys.2024.1451269

Spaceflight Standard Measures (Standard Measures) — Kuldavletova O, Clement GR, Macaulay TR, Denise P. Comparison of post-flight mission-critical tests between astronauts and bilateral vestibular patients. *42nd Annual ISGP Annual Meeting*, 2023, Antwerp, Belgium; 2024 May. 4pp.

Spaceflight Standard Measures (Standard Measures) — Walle M, Gabel L, Whittier DE, Liphardt A, Hulme PA, et al. Tracking of spaceflight-induced bone remodeling reveals a limited time frame for recovery of resorption sites in humans. *Science Advances*. 2024 December 20; 10(51): eadq3632. DOI: 10.1126/sciadv.adq3632

The Detrimental Effects of Long Duration Spaceflight on Human Wayfinding: The Behavioural and Neural Mechanisms Study (Wayfinding) — Batool S, Jaswal T, Burles F, Iaria G. Hippocampal volumetric changes in astronauts following a mission in the International Space Station. *NeuroSci*. 2025 September; 6(3): 70. DOI: 10.3390/neurosci6030070

The Detrimental Effects of Long Duration Spaceflight on Human Wayfinding: The Behavioural and Neural Mechanisms Study (Wayfinding) — Burles F, Williams R, Berger L, Pike B, et al. The unresolved methodological challenge of detecting neuroplastic changes in astronauts. *Life*. 2023 February 11; 13(2): 500. DOI: 10.3390/life13020500

The Effect of Long Duration Hypogravity on the Perception of Self-Motion (VECTION) — Jorges B, Bury N, McManus M, Bansal A, Allison RS, et al. The impact of gravity on perceived object height. *npj Microgravity*. 2024 October 4; 10(1): 95. DOI: 10.1038/s41526-024-00430-3

Vision Impairment and Intracranial Pressure (VIIP) — Aleci C, Dutto K. Insights and an update on Spaceflight-Associated Neuro-Ocular syndrome (SANS). *Discover Medicine*. 2025 July 17; 2(1): 191. DOI: 10.1007/s44337-025-00421-7

Vision Impairment and Intracranial Pressure (VIIP) — Helvacioglu Akyüz S, Cools B, Ong J, Waisberg E, Lee R, et al. The brain-eye-liver axis during spaceflight: implications of hepatic dysfunction in spaceflight associated neuro-ocular syndrome. *Life Sciences in Space Research*. 2025 November 1; 47: 164-180. DOI: 10.1016/j.lssr.2025.07.001

Vision Impairment and Intracranial Pressure (VIIP) — McGregor HR, Hupfeld KE, Pasternak O, Beltran NE, De Dios YE, et al. Crewmember demographic factors and their association with brain and ocular changes following spaceflight. *npj Microgravity*. 2025 August 28; 11(1):59. DOI: 10.1038/s41526-025-00505-9

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Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

Physical Science

Advanced Colloids Experiment-Microscopy-1 (ACE-M-1) — Datta SS, Paliwal W, Weeks ER, et al. Aging of colloidal gels in microgravity. *Physical Review E*. 2025 July 15; 112(1–2):015412. DOI: 10.1103/vdgy-2f6p

Advanced Colloids Experiment-Temperature-2 (ACE-T-2) — Swinkels PJ, Gong Z, Sacanna S, Meyer WV, Schall P. Colloidal molecules in microgravity assembled by critical Casimir forces. *Gravitational and Space Research*. 2025 January; 13(1): 21–29. DOI: 10.2478/gsr-2025-0001

Advanced Combustion via Microgravity Experiments, Burning and Suppression of Solids, Flow Boiling and Condensation Experiment, Observation and Analysis of Smectic Islands in Space, Solid Fuel Ignition and Extinction, International Space Station Summary of Research Performed (ACME, BASS, FBCE, OASIS, SoFIE, ISS Summary of Research) — Irace PH, Reeves RD, Stephens S, Roberts MS. Transport phenomena research in microgravity via the ISS National Lab to benefit life on Earth. *Gravitational and Space Research*. 2024 January; 12(1): 145-158. DOI: 10.2478/gsr-2024-0010 *

Binary Colloidal Alloy Test - 3 and 4: Critical Point, - 3: Binary Alloys, - 3: Surface Crystallization, - 5: Compete, - 5: Seeded Growth, - 5: Three-Dimensional Melt, - 5: Phase Separation, - 4: Polydispersion (BCAT-3-4-CP, BCAT-3-BA, BCAT-3-SC, BCAT-5-Compete, BCAT-5-Seeded Growth, BCAT-5-3D-Melt, BCAT-5-PhaseSep, BCAT-4-Poly) — Barnes L, Khusid B, Kondic L, Meyer WV, Oza AU, et al. Phase-field modeling of colloid-polymer mixtures in microgravity. *npj Microgravity*. 2025 September 1; 11(1):62. DOI: 10.1038/s41526-025-00500-0

Cold Atom Lab — Oudrhiri K, Kohel JM, Harvey N, Kellogg JR, Aveline DC. NASA's Cold Atom Laboratory: Five years of quantum science in space. *Space Operations (SPACEOPS 2023)*; 2025. DOI: 10.1007/978-3-031-60408-9_24

Colloidal Solids — Martinelli A, Buzzaccaro S, Galand Q, Behra J, Segers N, et al. An advanced light scattering apparatus for investigating soft matter onboard the International Space Station. *npj Microgravity*. 2024 December 19; 10: 115. DOI: 10.1038/s41526-024-00455-8

Columnar-to-Equiaxed Transition in Solidification Processing (CETSOL) — Zimmermann G, Sturz L, Pickmann C, Schaberger-Zimmermann E, Roosz A, et al. Structures in grain-refined directionally solidified hypoeutectic Al-Cu alloys: Benchmark experiments under microgravity on-board the International Space Station. *Materialia*. 2024 August; 36: 102171. DOI: 10.1016/j.mtla.2024.102171 *

Columnar-Equiaxed Transition in Solidification Processing for the Transparent Alloys Instrument (Transparent Alloys - CETSOL) — Sturz L, Zimmermann G, Pickmann C, Ghosh M, Bami Y. Columnar dendritic growth during directional solidification of neopentylglycol-(d)camphor investigated under microgravity conditions. *Journal of Crystal Growth*. 2025 April; 655: 128090. DOI: 10.1016/j.jcrysgro.2025.128090

Combustion Integrated Rack (CIR) — McNelis ME, Suarez V, Sullivan TL, Otten KD, Akers JC. Fluids and Combustion Facility: Combustion Integrated Rack Modal Model Correlation. *NASA Technical Memorandum*; 2005 May 1.*

Combustion Integrated Rack (CIR) — Weiland KJ, O'Malley TF. The FCF Combustion Integrated Rack - Microgravity combustion science on board the International Space Station. *2001 Conference and Exhibit on International Space Station Utilization*, Cape Canaveral, FL; 2001 October 15. DOI: 10.2514/6.2001-4927 *

Combustion Integrated Rack, Fluids Integrated Rack (CIR, FIR) — Corban R. ISS Fluids and Combustion Facility - Experiment accommodations summary. 2001 *Conference and Exhibit on International Space Station Utilization*, Cape Canaveral, FL; 2001 October 15. 11. DOI: 10.2514/6.2001-4928

Combustion Integrated Rack, Fluids Integrated Rack (CIR, FIR) — Francisco DR. Fluids and Combustion Facility - Combustion Integrated Rack. *36th AIAA Aerospace Sciences Meeting and Exhibit*, Reno, NV; 1998 January 12. 11pp. DOI: 10.2514/6.1998-257

Combustion Integrated Rack, Fluids Integrated Rack (CIR, FIR) — Zurawski R. The ISS Fluids and Combustion Facility - Microgravity combustion science and fluid physics research capability. 2001 *Conference and Exhibit on International Space Station Utilization*, Cape Canaveral, FL; 2001 October 15. DOI: 10.2514/6.2001-4925 *

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(Listed by category and alphabetically)

Combustion Integrated Rack, Fluids Integrated Rack (CIR, FIR) — Whittlesey-Harris RS, Nesterenko M. Fault-Tolerance Verification of the Fluids and Combustion Facility of the International Space Station. *26th IEEE International Conference on Distributed Computing Systems Workshops (ICDCSW'06)*, Lisboa, Portugal; 2006 July 4. DOI: 10.1109/ICDCSW.2006.52 *

Electromagnetic Levitator (EML) — Bracker GP, Schneider S, Matson DM, Hyers RW. Dynamic nucleation in sub-critically undercooled melts during electromagnetic levitation. *Materialia*. 2022 December; 26: 101623. DOI: 10.1016/j.mtla.2022.101623

Electromagnetic Levitator (EML) — Pauls AK, Bracker GP, Hyers RW. Accessible ranges of turbulent and transitional flow in electromagnetic levitation experiments. *High Temperatures-High Pressures*. 2023 March 1; 52(2): 139. DOI: 10.32908/hthp.v52.1331 *

Electromagnetic Levitator (EML) — Soellner W, Seidel A, Stenzel C, Dreier W, Glaubitz B. EML-Containerless Processing Facility for Material Science Research Onboard the ISS. *Journal of The Japan Society of Microgravity Application*. 2010 October 31; 27(4): 183. DOI: 10.15011/jasma.27.4.183 *

Electrostatic Levitation Furnace (ELF) — Ishikawa T, Oda H, Koyama C, Shimonishi R, Ikeuchi R, et al. Density of a molten stainless steel-B4C alloy measured in the Electrostatic Levitation Furnace onboard the International Space Station. *International Journal of Microgravity Science and Application*. 2025 April 30; 42(2): 420202. DOI: 10.15011/jasma.42.420202

Electrostatic Levitation Furnace (ELF, JAXA ELF) — Masuno A, Koyama C, Kohara S, Sasaki S, Izumi S et al. Glass-forming ability of La2O3–Nb2O5 evaluated via thermophysical properties under microgravity. *npj Microgravity*. 2025 August 25; 11(1): 58. DOI: 10.1038/s41526-025-00520-w

Electrostatic Levitation Furnace, Measurement of Temperature Dependence of Viscosity and Density of Depolymerized Silicate Melts (ELF, ELF-Silicate Melt) — Kono Y, Koyama C, Kondo NM, Ohara K, Kuwahara H et al. Gravitational stability of iron-rich peridotite melt at Mars' core-mantle boundary. *Communications Earth & Environment*. 2025 March 3; 6(1): 148. DOI: 10.1038/s43247-025-02117-3

ELF-Iron Oxide — Matsumoto I, Sato R, Watanabe M, Matsushita T. Volume change of core-shell droplets of liquid iron and molten oxide under microgravity conditions. *High Temperatures-High Pressures*. 2025; 54(2): 101-111. DOI: 10.32908/hthp.v54.1929

EML Batch 1 - THERMOLAB Experiment — Gangopadhyay AK, Hyers RW, Kelton KF. Nucleation and Thermophysical Properties of Glass-Forming Liquids. *JOM (Journal of the Minerals, Metals and Materials Society)*. 2012 September; 64(9): 1109-1117. DOI: 10.1007/s11837-012-0422-1 *

EML Batch 1 - THERMOLAB Experiment — Novakovic R, Giuranno D, Mohr M, Brillo J, Fecht HJ. Viscosity of liquid Ni-based industrial alloys: experiments versus theory. *International Materials Reviews*. 2024 February; 69(1): 63–79. DOI: 10.1177/09506608231220147 *

Euro Material Ageing — He Y, Suliga A, Brinkmeyer A, Schenk M, Hamerton I. Effect of atomic oxygen exposure on polybenzoxazine/POSS nanocomposites for space applications. Composites Part A: *Applied Science and Manufacturing*. 2024 February 1; 177: 107898. DOI: 10.1016/j.compositesa.2023.107898 *

Euro Material Ageing — Perraud S, Laurent E, Marelli L, Kerboub N, Faye D, et al. Euro Material Ageing – A European experiment on International Space Station for materials sciences research and technology development. *IOP Conference Series: Materials Science and Engineering*. 2025 June; 1328(1): 012020. DOI: 10.1088/1757-899X/1328/1/012020

Euro Material Ageing — Rivera Lopez MY, Suliga A, Scarpa F, Hamerton I. Development of cyanate ester-oligosiloxane copolymers for deployable satellite applications. *Polymer*. 2024 January 5; 290: 126573. DOI: 10.1016/j.polymer.2023.126573 *

Euro Material Ageing — Suliga A, Wessing J, Hand A, Tighe AP, Vincent-Bonnieu S. Euro Material Ageing – Ground-based testing and selection of the ESA flight candidate materials. *IOP Conference Series: Materials Science and Engineering*. 2023 August; 1287(1): 012026. DOI: 10.1088/1757-899X/1287/1/012026 *

Euro Material Ageing — Yamanaka R, Faye D, et al. On-ground and in-orbit experiments: new insight to reveal Atomic Oxygen Induced Contamination. *IOP Conference Series: Materials Science and Engineering*. 2025 June; 1328(1): 012011. DOI: 10.1088/1757-899X/1328/1/012011

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Evaluation of Long-Term Stability of Pharmaceutical Ingredients in an Excipient Matrix for Use in Potential Future On-Orbit Manufacturing (Pharmaceutical Excipient Ingredient Stability in Microgravity) — Tran QD, Spooner N, Geoghehan S, Thavarajah SR, Rahman S, et al. Cosmic-ray radiation effects on ibuprofen tablet formulation inside and outside of the International Space Station. *Advanced Healthcare Materials*. 2025 February 7; 14(4): 2402361. DOI: 10.1002/adhm.202402361

Examination of the Multi-physical Properties of Microgravity-synthesized Graphene Aerogels (SUBSA-ugGA) — Li Z, Ozbakir Y, Frick JJ, Ormsby R, Scherzer C, et al. On-orbit processing and hardware performance of microgravity hydrothermal synthesis for graphene aerogel. *Journal of Manufacturing Science and Engineering - Transactions of the ASME*. 2024 December 10; 146(12): 121007. DOI: 10.1115/1.4067303

Flow Boiling and Condensation Experiment (FBCE) — Mudawar I, Darges SJ, Devahdhanush VS, Hasan MM, Nahra HK. Pressure drop characteristics and prediction techniques (models/correlations and artificial neural networks) for microgravity flow boiling onboard the International Space Station. I*nternational Journal of Heat and Mass Transfer*. 2025 May; 240: 126593. DOI: 10.1016/j.ijheatmasstransfer.2024.126593

Flow Boiling and Condensation Experiment (FBCE) — Mudawar I, Darges SJ, Devahdhanush VS, Hasan MM, Nahra HK, et al. Two-phase flow instabilities during microgravity flow boiling onboard the International Space Station. *International Journal of Heat and Mass Transfer*. 2024 December 1; 234:126102. DOI: 10.1016/j.ijheatmasstransfer.2024.126102

Flow Boiling and Condensation Experiment (FBCE) — Mudawar I, Darges SJ, Hasan MM, Nahra HK, Balasubramaniam R, et al. Experimental investigation and analysis of flow condensation heat transfer in microgravity–Experiments onboard the International Space Station. *International Journal of Heat and Mass Transfer*. 2026 January; 254: 127602. DOI: 10.1016/j.ijheatmasstransfer.2025.127602

Fluids Integrated Rack (FIR) — Corban R, Winsa EA. Fluids and Combustion Facility - Fluids Integrated Rack. *36th AIAA Aerospace Sciences Meeting and Exhibit*, Reno, NV; 1998 January 12. 11. DOI: 10.2514/6.1998-258

Fluids Integrated Rack (FIR) — Gati FG, Hill ME. The FCF Fluids Integrated Rack - Microgravity fluid physics experimentation on board the ISS. *2001 Conference and Exhibit on International Space Station Utilization*, Cape Canaveral, FL; 2001 October 15. DOI: 10.2514/6.2001-4926 *

FSL Soft Matter Dynamics - FOAM (FSL Soft Matter Dynamics - FOAM) — Galvani N, Pitois O, Cohen-Addad S. Coarsening of bubble assemblies: From dry foams to dilute bubbly liquids. *Journal of Colloid and Interface Science*. 2025 May 8; 696: 137661. DOI: 10.1016/j.jcis.2025.137661

FSL Soft Matter Dynamics - Particle STAbilised Emulsions and Foams (FSL Soft Matter Dynamics - PASTA) — Orsi D, Lorusso V, Vaccari M, Cristofolini L. Diffusing wave spectroscopy for the study of emulsions on-ground and in microgravity. *Current Opinion in Colloid & Interface Science.* 2025 February; 75: 101892. DOI: 10.1016/j.cocis.2024.101892

Giant Fluctuations — Castellini S, Carpineti M, Giraudet C, Croccolo F, Vailati A. Dynamics of non-equilibrium concentration fluctuations during free-diffusion in highly stratified solutions of glycerol and water. *Journal of Chemical Physics*. 2023 June 23; 158(24): 158. DOI: 10.1063/5.0151752 *

High-Precision Thermophysical Property Data of Liquid Metallic Alloys for Modelling of Industrial Solidification Processes (EML Batch 3 - THERMOPROP) — Novakovic R, Giuranno D, Mohr M, Fecht HJ. Thermodynamic evaluation of the surface tension and viscosity of liquid quaternary alloys: The Ti-Al-Cr-Nb system. *Microgravity Science and Technology*. 2023 October 26; 35(6): 55. DOI: 10.1007/s12217-023-10080-x *

Materials International Space Station Experiment (MISSE-12-NASA, MISSE-13-NASA) — Cordero RJ, de Groh KK, Dragotakes Q, Singla S, Maurer C et al. Radiation protection and structural stability of fungal melanin polylactic acid biocomposites in low Earth orbit. *Proceedings of the National Academy of Sciences of the United States of America*. 2025 May 6; 122(18): e2427118122. DOI: 10.1073/pnas.2427118122

Materials International Space Station Experiment (MISSE-15-NASA, MISSE-16-NASA) — Leeper L, Jones K, Finckenor MM, McElderry J, Carrico M. Thermal control coatings flown on low Earth orbit materials experiments. *Journal of Spacecraft and Rockets*. 2024 September; 61(5): 1329-1338. DOI: 10.2514/1.A36020

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Materials International Space Station Experiments 13 and 14 NASA (MISSE-13-NASA, MISSE-14-NASA) — Sen S, O'Dell JS, Yan Y, Heilbronn L, Ning H, et al. Space environmental effects on multifunctional radiation shielding materials. *Earth and Space Science*. 2024 November; 11(11): e2024EA003681. DOI: 10.1029/2024EA003681

Materials International Space Station Experiment-16-Commercial (MISSE-16-Commercial) — Fouchal Y, Ramirez R, Beloreshka M, Plis EA. Comparative evaluation of spacecraft materials properties under simulated and true space environments. *Journal of the Astronautical Sciences*. 2024 November 27; 71(6): 53. DOI: 10.1007/s40295-024-00476-1

Materials International Space Station Experiment-17-NASA (MISSE-17-NASA) — Sukumaran AK, Rengifo S, Scott W, Gray A, Finckenor MM, et al. Radiation-resistant Ti/BN coatings: Insights from 171 days exposure to space radiation and atomic oxygen in low orbit. *npj Materials Degradation*. 2025 July 26; 9(1): 93. DOI: 10.1038/s41529-025-00644-0

Materials ISS Experiment Flight Facility. Materials International Space Station Experiment-14-NASA (MISSE-FF, MISSE-14-NASA) — Richards JT, Mortenson TE, Spern CJ, Mousseau TA, Gooden JL, et al. Simulated deep space exposure on seeds utilizing the MISSE flight facility. *npj Microgravity*. 2025 January 17; 11(1): 3. DOI: 10.1038/s41526-024-00451-y

Metastable Solidification of Composites: Novel Peritectic Structures and In-Situ Composites for the Transparent Alloys Instrument (Transparent Alloys - METCOMP) — Ludwig A, Mogeritsch JP. Observations of the occurrence and disappearance of peritectic couple growth performed under microgravity conditions. *Scripta Materialia*. 2024 January 15; 239: 115802. DOI: 10.1016/j.scriptamat.2023.115802 *

Multiscale Boiling — Zorkina A, Ronshin F, Kabov OA, Rednikov A, Tadrist L. Investigation of local heat fluxes in the contact line area during the growth of a single vapor bubble under microgravity conditions. *E3S Web of Conferences*. 2024 November 20; 592: 02019. DOI: 10.1051/e3sconf/202459202019

Nanoracks Cloud Seeding (Ax-2) — Farahat A. Examination of cloud seeding on board of the International Space Station: Experimental and modeling approach. *Microgravity Science and Technology*. 2024 November 9; 36(6): 63. DOI: 10.1007/s12217-024-10149-1

Observation and Analysis of Smectic Islands in Space (OASIS) — Minor E, Chowdhury R, Park CS, Maclennan JE, Clark NA, et al. Thermocapillary flow in fluid smectic bubbles in microgravity. *Crystals*. 2025 May; 15(5): 416. DOI: 10.3390/cryst15050416

PK-3 Plus: Plasma Crystal Research on the ISS (PK-3 Plus) — Takahashi K. Surface temperature of dust particles in plasmas used for microgravity experiments. *International Journal of Microgravity Science and Application*. 2024 October 31; 41(4): 410402. DOI: 10.15011/jasma.41.410402

Plasma Kristall-4 (PK-4) — McCabe LS, Williams J, Thakur SC, Konopka U, Kostadinova EG, et al. Experiments and modeling of dust particle heating resulting from changes in polarity switching in the PK-4 microgravity laboratory. *Physics of Plasmas*. 2025 May 1; 32(5): 053701. DOI: 10.1063/5.0244581

Plasma Kristall-4 (PK-4) — Wimmer L, Dormagen N, Klein M, Kretschmer M, Lipaev AM. Impact of particle charge and electrorheology-effects on dust-acoustic waves in low pressure complex plasma under microgravity. *New Journal of Physics*. 2025 February 28; 27: 033001. DOI: 10.1088/1367-2630/adb876

Quantifying Cohesive Sediment Dynamics for Advanced Environmental Modeling (BCAT-CS) — Kleischmann F, Vowinckel B, Meiburg E, Luzzatto-Fegiz P, et al. Long-term microgravity experiments reveal a new mechanism for particle aggregation in suspension. *npj Microgravity*. 2025 September 9; 11(1):63. DOI: 10.1038/s41526-025-00523-7

Reper-Kalibr — Burdakin A, Gavrilov VR, Puzanov AV, Us EA. The experiment on the ISS with low-temperature fixed points – a stage in developing high-stable on-board fixed-point blackbodies for in-flight calibrating the Earth observation IR instruments. *Issledovanie Zemli iz Kosmosa*. 2024 August 24; (2): 68-79. DOI: 10.31857/S0205961424020063

Selectable Optical Diagnostics Instrument-Influence of VIbrations on DIffusion of Liquids, SODI-DCMIX, International Space Station Summary of Research Performed (SODI-IVIDIL, ISS Summary of Research) — Kohler W, Mialdun A, Bou-Ali MM, Shevtsova V. The measurement of soret and thermodiffusion coefficients in binary and ternary liquid mixtures. *International Journal of Thermophysics*. 2023 August 16; 44(9): 140. DOI: 10.1007/s10765-023-03242-x *

List of Archived Space Station Publications

Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

SODI-DCMIX — Sanjuan A, Sommermann D, Kohler W, Shevtsova V, Bou-Ali MM. Thermodiffusion, diffusion and Soret coefficients of binary polymeric mixtures in toluene and cyclohexane. *Journal of Non-Equilibrium Thermodynamics*. 2024 October 28; 49(4): 411-419. DOI: 10.1515/jnet-2023-0125

SODI-DCMIX — Sanjuan A, Sommermann D, Kohler W, Bataller H, Croccolo F, et al. Analysis of the mass transport properties of the binary polymeric mixture in microgravity conditions during the DCMIX4 campaign onboard the ISS. Comparison with gravity-based experiments. *Acta Astronautica*. 2025 November; 236: 627-635. DOI: 10.1016/j.actaastro.2025.07.040

Strata-1 — Schang K, Dove A. Effects of particle shape and size on granular mechanics in vacuum and microgravity environments. *Planetary Science Journal*. 2025 April 11; 6(4): 88. DOI: 10.3847/PSJ/adb9eb

The Origin of Fragility in High-temperature Oxide Liquids - Towards Fabrication of Novel Non-equilibrium Oxide Materials (Fragility) — Shuseki Y, Kohara S, Kaneko T, Sodeyama K, Onodera Y, et al. Atomic and electronic structure in MgO–SiO2. *Journal of Physical Chemistry A*. 2024 February; 128(4): 716-726. DOI: 10.1021/acs.jpca.3c05561 *

Thermophysical Properties Measurements of Non-Equilibrium Molten Alloys for Design of Thermal Storage Material (ELF-Thermal Storage) — Seimiya Y, Kobatake H, Tono-Oka K, Sugahara R, Kurosawa S, et al. Thermophysical properties of molten Fe–Cu alloy measured using the Electrostatic Levitation Furnace aboard the International Space Station (ISS-ELF) under microgravity conditions. *ISIJ International*. 2024 November 27; 64(15): 2253-2261. DOI: 10.2355/isijinternational.ISIJINT-2024-277

Technology Development and Demonstration

Aerosol Sampling Experiment (Aerosol Samplers) — Balasubrahmaniam N, Nastasi N, Hegarty B, Horack JM, Meyer ME, et al. Exposure to elevated relative humidity in laboratory chambers alters fungal gene expression in dust from the International Space Station (ISS). *Scientific Reports*. 2025 August 4; 15(1): 28366. DOI: 10.1038/s41598-025-09534-6

Astrobee — Yang E, Hwu SU, Lansdowne C, Boster JP, deSilva K. Wi-Fi signal survey of the International Space Station by autonomous free-flying robot. 2024 *IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE)*, Daytona Beach, FL; 2024 December 16. 238–243. DOI: 10.1109/WiSEE61249.2024.10850420

Autonomous PHotosensing Reusable Onboard Device for Immunological Tests Execution (APHRODITE) — Mirasoli M, Shariati Pour SR, Emamiamin A, Zangheri M, Calabria D, et al. APHRODITE: A lab-on-chip biosensor for chemiluminescence immunodetection of salivary biomarkers onboard the International Space Station. *75th International Astronautical Congress, IAC 2024*, Milan, Italy; 2024 October 30. 9pp.

Bioprint FirstAid Handheld Bioprinter (Bioprint FirstAid) — Warth N, Berg M, Schumacher L, Boehme M, Windisch J, et al. Bioprint FirstAid: A handheld bioprinter for first aid utilization on space exploration missions. *Acta Astronautica*. 2024 February; 215: 194-204. DOI: 10.1016/j.actaastro.2023.11.033 *

COMPASSO: Innovative, high-precision quantum optical technologies for the continuing development of Europe's Galileo Navigation Satellite System — Wegehaupt T, Gohlke M, Kuschewski F, Oswald M, Abich K. Towards Compact, Robust and Highly Stable Optical Frequency References for Space Applications. *Journal of Physics: Conference Series*. 2024 November 1; 2889(1): 012012. DOI: 10.1088/1742-6596/2889/1/012012

Component Repair Experiment - 1, SDTO 17012U, Soldering in Reduced Gravity Experiment, SDTO 17003-U (CRE-1, SoRGE) — Easton JW, Struk PM, et al. Current space station experiments investigating component level electronics repair. *AIAA SPACE 2009 Conference & Exposition*, Pasadena, CA; 2009 September 14. 13pp. DOI: 10.2514/6.2009-6798 *

Exposure Experiment of Wooden Specimen to Outer Space on the International Space Station (Exposure of Wood to Outer Space) — Murata K, Nakamura M, Kariya A, Tsuchiya M, Yamashiki YA, et al. Space exposure test of hardwood specimens in the International Space Station. *Journal of Wood Science*. 2024 November 2; 70(1): 49. DOI: 10.1186/s10086-024-02165-x

Ice Cubes Experiment Cube #6 - Kirara (Ice Cubes Experiment Cube #6 – Kirara) — Dorman G, Buchholcz B, Puskas I, Szabo P, Varga E. Repetitive stability study of remdesivir/cyclodextrin complex on the International Space Station. *Scientific Reports*. 2025 February 4; 15(1): 4182. DOI: 10.1038/s41598-024-81428-5

International Space Station Internal Radiation Monitoring (ISS Internal Radiation Monitoring) — Molodtsova DV, Stradi A, Artamonov A, Kurdanov HA, Konstantinova NA, et al. The microwave electromagnetic background as measured onboard the International Space Station. *Life Sciences in Space Research*. 2025 May; 45: 1-6. DOI: 10.1016/j.lssr.2025.01.001

List of Archived Space Station Publications

Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

JEM Internal Ball Camera 2 (JEM Internal Ball Camera 2) — Hirano D, Mitani S, Watanabe K, Nishishita T, Yamamoto T, et al. Int-Ball2: On-orbit demonstration of autonomous intravehicular flight and docking for image capturing and recharging. *IEEE Robotics & Automation Magazine*. 2025 September; 32(3): 76-87. DOI: 10.1109/MRA.2024.3505776

JEM Internal Ball Camera 2 (JEM Internal Ball Camera 2) — Nishishita T, Watanabe K, Hirano D, Mitani S. GNC design and orbital performance evaluation of ISS onboard autonomous free-flying robot Int-Ball2. *2024 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Abu Dhabi, UAE; 2024 October 14-18. 4519-4526. DOI: 10.1109/IROS58592.2024.10802183

Materials International Space Station Experiment (MISSE-8, MISSE-9-NASA, MISSE-13-NASA) — de Groh KK, Whitt A, Banks BA. Effect of space exposure on the tensile properties of MISSE Teflon flight samples. *NASA Technical Memorandum*. 2025 April.

Neurowellness in Space: A Technology Demonstration into the Viability of Long-term Monitoring of Brain Dynamics and Cognitive Function in Space Eco-Systems (Neurowellness in Space (Ax-1)) — Kokkinos V, Koupparis A, Fekete T, Privman E, Avin O, et al. The posterior dominant rhythm remains within normal limits in the microgravity environment. *Brain Sciences*. 2024 November 27; 14(12): 1194. DOI: 10.3390/brainsci14121194

Robotic Refueling Mission 3 (RRM3) — Wu D, Jennings DE, Choi K, Jhabvala MD, Limbacher JA, et al. Compact thermal imager (CTI) for atmospheric remote sensing. *Remote Sensing*. 2021 January; 13(22): 4578. DOI: 10.3390/rs13224578 *

Robotic Surgery Tech Demo — Wagner R, Nelson V, Cubrich L, Hailey E, Farritor S, et al. Miniature robotic telesurgery demonstration aboard the ISS. *AIAA AVIATION FORUM AND ASCEND 2025*, Las Vegas, Nevada. 2025 July 21; 6pp. DOI: 10.2514/6.2025-4054

Secure Laser Communications between International Space Station and Ground Station (JAXA SECRETS) — Yamaguchi K, Yazawa M, Owashi S, Ozawa S, Tsog N. A redundant configured OBC for SeCRETS (SECuRe lasEr communicaTionS terminal for LEO). *Small Satellites Systems and Services Symposium (4S 2024)*, Palma de Mallorca, Spain; 2025 March 20. 770–783. DOI: 10.1117/12.3061758

Spacecraft Atmosphere Monitor — Madzunkov SM, Malone CP, Simcic J, Jung-Kubiak C, Bae B, et al. Progress report on the deployment of the second Spacecraft Atmosphere Monitor Technology Demonstration Instrument. *53rd International Conference on Environmental Systems*, Louisville, Kentucky; 2024 July 21. 8pp. *

Space Demonstration for All Solid-State Li Ion Battery (Space As-Lib) — Miyazawa Y, Shimada T, Fuse T, Shimada S, Nishiura S, et al. Space demonstration of all-solid-state lithium-ion batteries aboard the International Space Station. *Aerospace*. 2025 June 6; 12(6): 514. DOI: 10.3390/aerospace12060514

Space Test Program-H2-Atmospheric Neutral Density Experiment, Space Test Program-H2-Microelectromechanical System-Based (MEMS) PICOSAT Inspector, Space Test Program-H2-Radar Fence Transponder (STP-H2-ANDE, STP-H2-MEPSI, STP-H2-RAFT) — Ballard PG, Meza A, Ritterhouse S, Shaffer T, Conley CL, et al. Small Satellite Deployments From STS-116 – Development Of New Manned Spaceflight Deployment Systems. *21st Annual AIAA/USU Conference on Small Satellites*; 2007 August 14. 8pp. *

Space Test Program-Houston 8-Compact Ocean Wind Vector Radiometer (STP-H8-COWVR) — Zhou L, Wang Z, Zhang N, Qu J, et al. Validation of Sea Surface Winds from the Space-borne Radiometer COWVR. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. 2025 April 28; 18: 12241–12247. DOI: 10.1109/JSTARS.2025.3564966

Space Test Program-Houston 10-cadmium zinc TElluride Radiation Imager (STP-H10-TERI) — Shy D, Streicher M, Groves D, He Z, Jaworski J, et al. Development of the cadmium zinc TElluride Radiation Imager. *Journal of Astronomical Telescopes, Instruments, and Systems*. 2024 November; 10(4): 044009. DOI: 10.1117/1.JATIS.10.4.044009

Space Terroir: Exploration of Fermentation Processes for Space Food (Space Terroir) — Coblentz M, Evans JD, Kothe CI, Mak T, Valeron NR. Food fermentation in space: Opportunities and challenges. *iScience*. 2025 April 18; 28(4): 112189. DOI: 10.1016/j.isci.2025.112189

List of Archived Space Station Publications

Oct. 1, 2024 – Sept. 30, 2025

(Listed by category and alphabetically)

Surface Avatar is a Multipurpose Avatar and Robots Collaborating with Intuitive Interface (Surface Avatar) — Seidel D, Schmidt A, Luo X, Raffin A, Mayershofer L, et al. Toward space exploration on legs: ISS-to-Earth teleoperation experiments with a quadruped robot. *2024 IEEE Conference on Telepresence*, Pasadena, CA; 2024 November 16-17. 10-15. DOI: 10.1109/Telepresence63209.2024.10841792

Synchronized Position Hold, Engage, Reorient, Experimental Satellites (SPHERES) — Chen A, Saenz-Otero A, Hilstad M, Miller DW. Development of formation flight and docking algorithms using the SPHERES testbed. *15th Annual USU Conference on Small Satellites*; 2001 August 15. *

Synchronized Position Hold, Engage, Reorient, Experimental Satellites (SPHERES) — Chung S, Adams D, Saenz-Otero A, Kong EM, Miller DW. SPHERES tethered formation flight testbed: advancements in enabling NASA's SPECS mission. *2006 Advances in Stellar Interferometry*, Orlando, Florida; 2006 June 27. 102–114. DOI: 10.1117/12.670489 *

Synchronized Position Hold, Engage, Reorient, Experimental Satellites (SPHERES) — Miller DW, Saenz-Otero A, Wertz J, Chen AI, Berkowski G. SPHERES: A testbed for long duration satellite formation flying in micro-gravity conditions. *Proceedings of the AAS/AIAA Space Flight Mechanics Meeting*, Clearwater, Florida; 2000. 167–179. *

Synchronized Position Hold, Engage, Reorient, Experimental Satellites (SPHERES) — Saenz-Otero A, Chen AI, Miller DW, Hilstad M. SPHERES: development of an ISS laboratory for formation flight and docking research. *Proceedings*, *IEEE Aerospace Conference 2002*, Big Sky, MT; 2002 March 9. DOI: 10.1109/AERO.2002.1036828 *2

Synchronized Position Hold, Engage, Reorient, Experimental Satellites (SPHERES) — Saenz-Otero A, Miller DW. The SPHERES ISS laboratory for rendezvous and formation flight. 5th ESA International Conference on Spacecraft Guidance, Navigation and Control Systems, Frascati, Italy; 2003 February 1. 217. *

Technology Demonstration for Radiation Monitoring (COTS-CAPSULE) — Simhony Y, Segal A, Orlov Y, Bashi D, Amrani O, et al. Spaceborne COTS-Capsule hodoscope: Detecting and characterizing particle radiation. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*. 2025 January 1; 1070: 169996. DOI: 10.1016/j.nima.2024.169996

Telemetry Data-Based Determination of the Dynamic ISS Characteristics (Tenzor (Tensor)) — Vlasov SO, Glasyshev AI, Boguslavsky AA, Sokolov SM, et al. [Example of the object detection problem solving using neural network technologies]. *Keldysh Institute Preprints*. 2023 (16):1–27. DOI: 10.20948/prepr-2023-16

Überflieger 2: Ferrofluid Application Research Goes Orbital (Überflieger 2: FARGO) — Karahan B, Kob M, Ehresmann M, Sutterlin S, Heinz NF, et al. In-orbit validation of a ferrofluidic Thermal Switch in ISS microgravity. *CEAS Space Journal*. 2024 December 3; 17: 769–779. DOI: 10.1007/s12567-024-00579-3

Virginia CubeSat Constellation (VCC) — Spicer R, Cote T, Itchkawich T, Black J, Williams C, et al. 12U In-Space 3D Printer Concept. *AIAA SCITECH 2025 Forum*, Orlando, FL; 2025 January 6. 10. DOI: 10.2514/6.2025-1982

* = Article published prior to FY-25
† = Access may be restricted in some regions