

Where Do Switchbacks Come From?

Reconnecting field lines create kink

Switchbacks are sudden reversals in the solar wind's magnetic field. They were a surprise discovery as NASA's Parker Solar Probe made its first close flyby of the Sun in November 2018.

How do switchbacks form? Here are the current theories competing to explain them. Reconnecting field lines create flux rope 0000 Expanding plasma ripples Shear-driven turbulence slower wind faster wind Slow wind reconnects to fast, fast wind overtakes slow slow, emitted first fast, emitted later

(Not to scale)

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