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Light flips quantum currents instantly



Researchers at Nanyang Technological University have developed a method to steer electric currents in quantum materials using light, overcoming a major challenge in directing electron flow without resistance. By using circularly polarized light to switch the magnetic field orientation in moiré Chern ferromagnets, they can instantly reverse current direction along the material's edges. This breakthrough could lead to ultra-efficient quantum computing devices and programmable low-power electronics.

<https://www.msn.com/en-us/news/technology/light-flips-quantum-currents-instantly/ss-AA1ZCZvU#image=1>