Abstract Submitted
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Fermion transfer by vortex tunneling JOHAN NILSSON, University of Gothenburg — We study a Fabry-Perot interferometer made out of magnetic and superconducting regions on the surface state of a 3D topological insulator. In particular we investigate the possibility of transferring a chiral edge Majorana fermion between two counter-propagating edges by the tunneling of two superconducting vortices across the superconducting region. This process is potentially useful for topological charge measurement.

Johan Nilsson
University of Gothenburg

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