

Joint Quantum Institute Seminar
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Physics 1201

Vortex braiding and fusion in p_x+ip_y superconductors

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Superconductors with a p_x+ip_y order parameter host vortices with Majorana zero-mode bound states in their cores. These vortices are analogues of the non-abelian quasiparticles that appear in the Pfaffian quantum Hall states, and which have been suggested as tools for quantum computation. The exotic physics of non-abelian braiding and fusion rules is, however, much easier to understand in the superconductor than in the Hall effect.

Host UMD: Victor Yakovenko