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**Dynamics of Axion Vortices** AKIHIRO TANAKA, National Institute for Materials Science, TORU KIKUCHI, High energy accelerator research organization, MUNETO NITTA, Keio University — Vortex lines of axion fields - axion strings - can arise in a variety of topological states of matter, e.g. in Weyl semimetals, topological superconductors, and dislocations in topological insulators. We derive the forces exerted on such axion vortices in analogy to the forces which a vortex in motion within a superfluid experiences.

Akihiro Tanaka  
National Institute for Materials Science

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