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## BEC vortices as an observational signature of Ultra-light bosonic dark matter

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Ultra-light bosonic dark matter (ULDM) is an interesting dark matter candidate. While the wave-like nature of ULDM has been widely studied in the literature, we explore another distinctive feature of ULDM as Bose-Einstein Condensate (BEC) in this paper: the emergence of vortices in rotating BEC-ULDM halos. Using numerical solution of the GPP equation, we demonstrate that a vortex lattice would form naturally in such systems given the Milky Way-like parameters. Furthermore, we study the gravitational lensing by these vortices as a possible observational signature of BEC-ULDM.

### Mini Symposia (Invited Talks Only)

### Plenary (Invited talks only)

**Authors:** LEUNG, Man Hei (The Ohio State University); CHU, Ming Chung (The Chinese University of Hong Kong (HK)); Mr ZHOU, RongZi (The Chinese University of Hong Kong); Mr POON, Sheung Chi (The Chinese University of Hong Kong)

**Presenter:** LEUNG, Man Hei (The Ohio State University)

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