Workshop on Cosmic Indicators of Dark Matter 2024



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Dark matter on small scales

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Dark matter is now known to be the vital ingredient for the growth of structure in the Universe, but its nature remains a mystery. Dark matter on the small mass scales, such as within galactic and sub-galactic structures, may well be the key to shedding light on fundamental properties of dark matter and new physics. In particular, revealing dark matter distributions in less massive galaxies is of crucial for testing dark matter models and constraining particle candidate of dark matter. In this talk, I will discuss the current efforts to constrain dark matter distributions in the Milky Way, dwarf spheroidals, and nearby galaxies through dynamical analysis of their currently available data. I will then discuss the future prospects for these dark matter studies.

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