

## Special Issue on **Dark Matter: WIMP, Axion, and Beyond**

# CALL FOR PAPERS

Dark matter (DM) comprises approximately 27% of the energy density in the observable universe. Its properties, such as mass and interactions with SM, remain largely unknown. Unveiling the properties of dark matter and its associated sector is one of the most important tasks in high energy physics. Weakly Interacting Massive Particle (WIMP), motivated by possible new physics at the electroweak scale, is one potential DM candidate. The strong CP problem motivates the existence of the QCD axion, which is an additional DM candidate. There are many other possibilities which remained to be explored, such as a dark photon, a sterile neutrino, and primordial black holes.

Though many efforts have been devoted and great progress has been made, the identity of DM remains a mystery. We hope this special issue can provide a platform for dark matter hunters to initiate discussion on new and interesting issues emerging in this field.

Ideas on novel ways to study dark matter and dark sectors are encouraged. Potential connections to existing or proposed experiments are especially welcome. High original research articles are welcome. Review articles which summarize interesting and viable proposals may also be included.

Potential topics include but are not limited to the following:

- ▶ WIMP
- ▶ Axion-like particles
- ▶ Dark photon
- ▶ Sterile neutrinos
- ▶ Primordial black holes
- ▶ Boosted DM, DM self-interaction
- ▶ Direct/indirect detection and collider search

Authors are expected to deposit their manuscript in the arXiv pre-print server prior to submission, under the relevant high energy physics subject area: Experiment (hep-ex), Lattice (hep-lat), Phenomenology (hep-ph), or Theory (hep-th). Articles that are rejected by arXiv for these categories are unlikely to be suitable for the journal.

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ahep/wimp/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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