

Special Issue on Dwarf-Galaxy Cosmology

Call for Papers

Dwarf galaxies are the faintest, least massive, and most numerous kind of galaxy in the Universe. Their frequency, spatial distribution, baryonic/nonbaryonic content, star-formation and supernova rates, and dynamics are useful observables to test predictions of cosmological models. Nearby dwarf galaxies provide astrophysical sites for the indirect detection of the hypothetical dark-matter particle, which is a cornerstone of the Λ CDM concordance cosmology, with ground- and space-based instruments.

Dwarf-galaxy cosmology is a cross-disciplinary area of research at the intersection of astrophysics, cosmology, and particle physics. This Special Issue aims to be the go-to reference for the next generation of researchers in this area, and is intended to provide an engaging overview of the state of the art. The Guest Editors welcome original research articles on topics concerning dwarf galaxies and cosmology. The Guest Editors also welcome the submission of review articles, written in the style of a tutorial at the graduate-student level, from the theoretical, observational, or experimental perspectives, and covering topics that include, but are not limited to:

- Is the substructure problem still a problem?
- The dark-matter content of dwarf galaxies
- The distribution of dark matter in dwarf galaxies and the cusps versus cores controversy
- Searching for dark matter candidates in dwarf galaxies
- Stellar streams around massive galaxies
- Tidal dwarfs and missing baryons
- Testing MOND with dwarf galaxies
- What can dwarf galaxies tell us about dark energy?
- Dwarf galaxies and Big-Bang nucleosynthesis
- Dwarf galaxies in voids
- Dwarf galaxies as building blocks versus downsizing
- How will survey astronomy contribute to dwarf-galaxy cosmology?

Before submission, authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/aa/guidelines.html>. Prospective authors should follow the Advances in Astronomy manu-

script format described at the journal's website <http://www.hindawi.com/journals/aa/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/>, according to the following timetable:

Manuscript Due	May 1, 2009
First Round of Reviews	August 1, 2009
Publication Date	December 1, 2009

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