Special Issue

Dark Matter Annihilation

Message from the Guest Editor

Observations indicate the existence of missing mass in our universe. The concept of dark matter has been invoked to represent the unknown missing mass. Many possible new particles have been proposed to be the candidates of dark matter. Some of the models suggest that dark matter particles can self-annihilate to give high-energy photons, electrons, positrons and neutrinos. If dark matter can self-annihilate, it is possible for us to observe dark matter indirectly and constrain its properties. Therefore, gamma-ray observations, x-ray observations, positron observations, anti-proton observations, neutrino observations and radio observations are possible ways to constrain dark matter. This Special Issue will explore this particular area of study. It includes a discussion and review of dark matter annihilation, constraints of annihilating dark matter by observational data, the modelling of dark matter annihilation, and other related issues. We anticipate that these studies will provide a good summary for this Special Issue and further constrain the current limits of dark matter properties.

Guest Editor

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Galaxies provides an advanced forum for studies related to astronomy, astrophysics, and cosmology, including all of their subfields. Different formats, such as specialized research articles, reviews, communications and technical notes are welcomed. Manuscripts containing original and creative research proposals and ideas are especially appreciated.

We encourage scientists to publish their astronomical observations and theoretical results in as much detail as possible. There is no restriction on the paper length and full experimental and methodological details, as applicable, should be provided. All papers will be peer reviewed promptly. On behalf of the distinguished members of the editorial board, I extend my welcome to all researchers working on these subjects to contribute to *Galaxies*.

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