

COSPAR 2026 Interdisciplinary Lecture

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Title :

Gaia recent results on our Galaxy

Abstract:

The Gaia mission has completed the 10.5 years of survey, collecting the astrometric, photometric, and spectroscopic data for about 2.5 billion celestial sources, from the solar system to the Milky Way to the distant universe. Work is ongoing to produce Gaia DR4 based on the first 5.5 years of data, with the release expected by the end of 2026, while the full 10 year of data will be delivered in the Gaia DR5 (in 2030). The exquisite precision of the Gaia data have revolutionized astronomy and our knowledge of the structure, dynamics and evolution of the Milky Way as well as of our Solar System. In this lecture, I will provide a brief overview of Gaia DR4 data and I will present some of the recent advances on our Galaxy