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Séminaire général de physique de l'Institut Polytechnique de Paris
Département de physique de l'École polytechnique

MILKY WAY EVOLUTION MODELLING, THE NEW PERSPECTIVE WITH THE GAIA MISSION

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Our view of the Milky Way has been revolutionized by the publication of Gaia data. Stellar physics, galactic dynamics, galactic structures and evolution have been impacted by the numerous particularly impressive results achieved by the Gaia mission. We will present how these data can be used to derive a model of the Galaxy that takes into account most of the available data and helps to interpret them in a realistic view of Galactic history. This model has been developed since the 80's at Besançon observatory and benefited along several decades from various progresses in our understanding of physical processes at play in stellar interiors, stellar atmospheres, Galactic chemical and dynamical evolution. In the Gaia era the progresses have been even more impactful, even with identifications of imprints of interactions between the Galaxy and its environment. Finally we shall also present how this model provides efficient and realistic simulation tools that allow the new vision to be extrapolated to other wavelengths and to prepare for coming ground-based surveys and future space missions.

THURSDAY MARCH 26, 2026

5 pm - 6:15 pm
LECTURE HALL
AMPHI GAY LUSSAC
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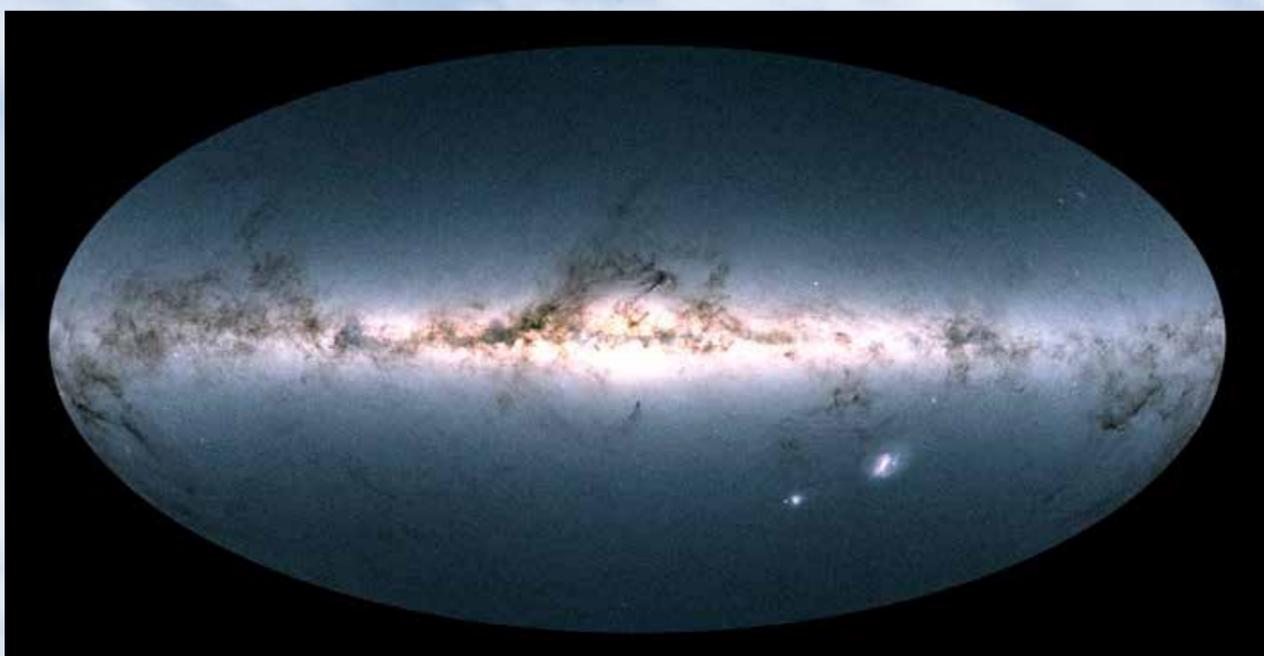
Gaia's sky in colour - Satellite: Gaia - April 25, 2018
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