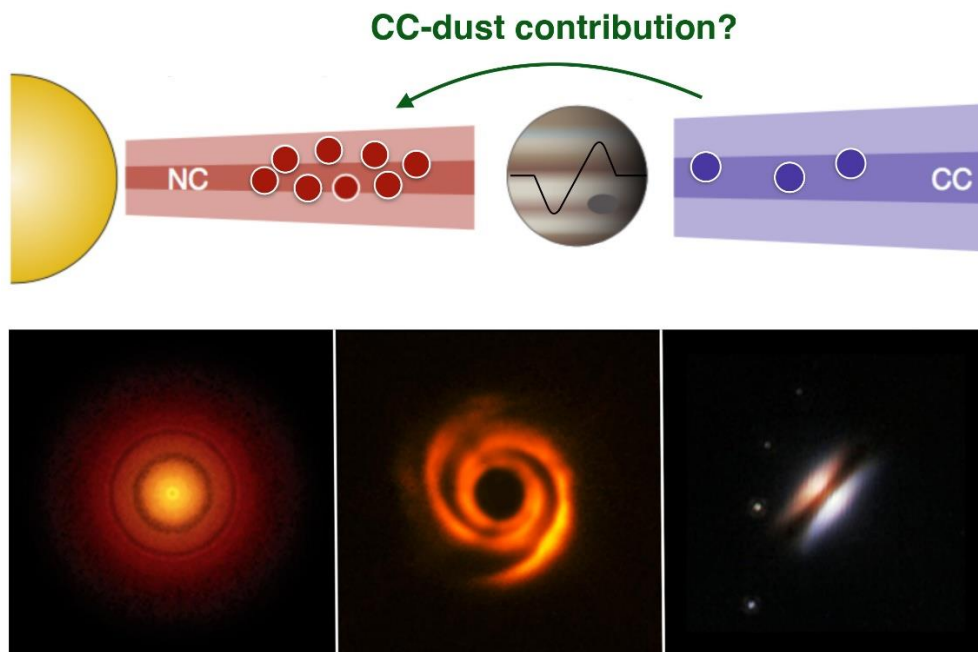


Seminario

Testing the permeability of the barrier separating the inner and outer circumsolar disk

Tuesday, 24 February 2026 – 16:30, Aula Arduino

Relatore: **Dr. Yves Marrocchi** – Director of the Centre de Recherches
Pétrographiques et Géochimiques (CRPG-CNRS, France)



images from <https://webbtelescope.org>

Meteorites provide key insights on the evolution of the solar system. The recent discovery of a fundamental isotopic dichotomy between non-carbonaceous (NC) and carbonaceous (C) meteorites attests that the solar system was divided by a physical barrier into two distinct reservoirs. However, the nature and permeability of this barrier remain unclear. These uncertainties impact our understanding of how terrestrial planets formed in the inner solar system. Deciphering the permeability of the NC/C barrier can be approached by studying chondrules - submillimeter spheroids representing the most abundant high-temperature material in NC and carbonaceous chondrites (CC). Although this makes chondrules a unique tracer of disk processes, no dedicated study has yet investigated the potential inward migration of CC-like chondrules into the terrestrial planet-forming zone. In this context, I will present combined O-Ti-Cr-Fe isotopic data on NC chondrules and discuss the implications of these results on the isotopic evolution of the NC reservoir and its implications for the permeability and nature of the NC/C barrier.

Proponente: **Christine Meyzen**

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