



## Postdoctoral position at IRAP Toulouse - Modeling the dust prop- erties of the Milky Way and the Magel- lanic Clouds

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The *Institute of Research in Astrophysics and Planetology* (IRAP) in Toulouse, invites applications for a PostDoc research position to work on the dust properties of the Milk Way and the Magellanic Clouds.

The French ministry is funding the ANR project REDEEMING, with two PostDoc positions, one at IRAP Toulouse and one at CEA Paris-Saclay, to help in the analysis of multi-wavelength data and the design of a properly-constrained metallicity-dependent interstellar dust model. The PostDoc at IRAP, to which this announcement is addressed, will be working with Nathalie Ysard (IRAP) and the REDEEMING consortium. The work will first consist in developing the THEMIS dust model (Ysard et al. 2024) to build state-of-the-art grain optical properties for the Magellanic clouds. The final goal is to extend this to nearby galaxies and damped Lyman-alpha systems. The ideal candidate has experience in modeling of ISM dust emission and extinction. Experience with the calculation of dust optical properties and/or of the physics of dust evolution are key points. Knowledge of a programming language such as Python and / or Fortran are strong assets. Candidates must have completed a PhD prior to the beginning of the position. Review of applications will begin in December 2024. The search will continue until the position is filled.

The PostDoc grant is for **three years**, and is expected to start in September / October 2025. Applications should be sent as **one PDF** file to Nathalie YSARD and Frédéric GALLIANO, and should include:

1. a cover letter indicating motivation and qualifications;
2. a curriculum vitae with a list of publications;
3. a short research statement;
4. the name of two referees who could provide letters of reference.

Inquiries should be addressed to Nathalie YSARD ([nathalie.ysard@cnrs.fr](mailto:nathalie.ysard@cnrs.fr)) and Frédéric GALLIANO ([frederic.galliano@cea.fr](mailto:frederic.galliano@cea.fr)).

IRAP is located in Toulouse in the Haute-Garonne region of southwest France. IRAP is France's largest astrophysics laboratory, with around 300 staff (35 of whom are in the team in which the PostDoc will be working), and is in the immediate vicinity of the French space agency (CNES) and many physics laboratories. IRAP offers a lively and very active research environment of the highest international standards. The research at IRAP covers many areas of observational, theoretical, and applied astrophysics.

For more information on the hiring institute, see the web pages of IRAP (<https://www.irap.omp.eu/en/homepage-en/>).