Nicolas Deparis | PhD student

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🌐 https://github.com/NicolasDeparis • DOB 24/05/1986 - 30 years old

Research interest

I am currently working with radiative hydrodynamical simulations in the cosmological context of the Epoch of Reionization. I concentrate to star formation and feedback processes – radiation, stellar wind, supernovae – at high redshift, and how theses processes influence galaxy formation history. I am specially motivated by the field of high performance computing and software engineering.

Experience

6 month fixed-term contract   **2014**
Supervisor: Dominique Aubert   *Observatoire Astronomique de Strasbourg/CNRS*
Implementing stellar formation in the RHD cosmological code EMMA

10 weeks Master 2 training   **2011**
Supervisor: Dominique Aubert   *Observatoire Astronomique de Strasbourg*
Study of the cosmological tidal field with N-body simulation.
Programming a multigrid algorithm to solve Poisson equation on GPU

4 weeks Master 1 training   **2010**
Supervisor: Dominique Aubert   *Observatoire Astronomique de Strasbourg*
Study of the Epoch of Reionization with radiative transfer simulation.
Integrating multi-wavelength capability in the ATONcode

Education

Ph.D. in Astrophysics   **2014–present**
supervisor: Dominique Aubert   *Strasbourg University*
Thesis title : Reionization of the local group

Master in Theoretical Physics   **2009–2011**
Specialization : Astrophysics   *Strasbourg University*

School

06/2016: Gutenberg School on Astrophysics - Stars and Galaxy Formation - Observatoire de Strasbourg, France

05/2016: Galaxy formation and evolution in a cosmological context by Andrea Cattaneo - Institut d'Astrophysique de Paris, France

03/2015: Numerical Simulations in Astrophysics - Observatoire de Strasbourg, France

Conferences

06/2016: Illuminating the Dark Ages: Quasars and Galaxies in the Reionization Epoch - MPIA Summer Conference 2016- Heidelberg, Germany

06/2016: Talk at Journées de la SF2A - Lyon, France

04/2016: Talk at 13th Potsdam/AIP Thinkshop "Near Field Cosmology" - Obergurgl, Tytol, Austria

10/2015: Talk at meeting ORAGE - Roscoff, France

05/2015: Poster at The Olympian Symposium 2015 Cosmology and the Epoch of Reionization - Paralia Katerini's, Mount Olympus, Greece

05/2015: CLUES meeting 2015 - Copenhague, Danemark

Outreach

06/2015: Kids university - Strasbourg, France

Publications

N. Deparis, D. Aubert, P. Ocvirk, and N. Gillet, "Radiation and supernovae feedback during the epoch of reionization with emma," in prep.

D. Aubert, N. Deparis, and P. Ocvirk, "EMMA: an adaptive mesh refinement cosmological simulation code with radiative transfer," *Monthly Notices of the Royal Astronomical Society*, vol. 454, pp. 1012–1037, Nov. 2015.

A. Schaaff, J. Berthier, J. Da Rocha, N. Deparis, S. Derriere, P. Gaultier, R. Houpin, J. Normand, and P. Ocvirk, "Immersive 3d Visualization of Astronomical Data," vol. 495, p. 125, Sept. 2015.