

Maxime Rey

PhD in Astrophysics

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Employment

- 2023–now **Postdoctoral researcher**, CGER, Yonsei university (South Korea).
- 2019–2022 **Ph.D. in Astrophysics**, supervised by *Jérémy Blaizot*, CRAL, ENS de Lyon (France).
- 2021–2022 **Board of directors**, *Kayoo (climbing association)*.
- 2019–2021 **Popularizer**, Planétarium de Vaulx-en-Velin (France).

Education

- 2016–2019 **Magistère de Physique Fondamentale d'Orsay**, Université Paris Sud.
- 2018–2019 **Master 2 (M.sc.)- Astrophysics**, Université Lyon 1, *valedictorian*.
- 2017–2018 **Master 1 - School of Physics and Astronomy**, University of Manchester (UK).
- 2016–2017 **Licence 3 (B.Sc.) - Fundamental Physics**, Université Paris-Sud.
- 2014–2016 **CPGE MP^W**, Lycée Jean Perrin, *with honours*.

Talks

- Jan. 2023 Invited speaker, IAP galaxy seminars (Paris *Virtual*)
- Nov. 2022 Recent Advances in Galaxy Formation and Reionization (Seoul, South Korea, [galrei22](#))
- June 2022 PNCG galaxies days (Strasbourg, France, [jpncg22](#))
- Jan. 2022 Invited speaker, Astrolunch, Hebrew University of Jerusalem (Israel, *Virtual*)
- Dec. 2021 3DGasFlows (*Virtual*)
- Oct. 2021 RASCAS/SPHINX (Fréjus, France)
- Sept. 2021 Ramses user meeting (*Virtual*, [rum2021](#))
- Sept. 2021 MEGAFLOW consortium (*Virtual*)
- Feb. 2021 RASCAS/SPHINX (*Virtual*, [rascas21](#))
- June. 2020 RASCAS/SPHINX (*Virtual*)
- Apr. 2020 3DGasFlow (*Virtual*)
- Dec. 2019 RASCAS/SPHINX (Geneva, Switzerland)
- Dec. 2019 GALPAC (Lyon, France)
- Nov. 2019 Congrès des doctorants de l'OSU (Lyon, France, [cdd2019](#))

Weekly

- 2022–now Gasflows meetings (Lyon, France)
- 2019–2022 Astro-ph journal club (Lyon, France)
- 2019–2021 Team meetings (Lyon, France)
- 2019–2021 ramses_cral technical meeting (Lyon, France)

Organisation

- Nov. 2021 Congrès des doctorants de l'OSU, SOC/LOC (Lyon, France, [cdd2021](#))
- Nov. 2020 BlueMUSE science workshop, LOC (*Virtual*, [bluemuse-sw](#))
- June 2019 European Week of Astronomy and Space Science, volunteer (Lyon, France, [ewass2019](#))

Teaching

- 2020–2022 **Astrophysics**, 2nd year, tutorials.
2019–2022 **Thermodynamics**, 1st year, lab course.
2020–2021 **General physics: electricity**, 1st year, lab course.
2019–2020 **Electromagnetism**, CPGE MP, khôlles^W (2nd year oral examinations).

Outreach

- 2021–2022 Astrosymphonie (outreach conference with a philharmonic orchestra 🎵)
2022 Geek touch with the outreach association DéMesures
2021 Invited speaker for a 75 min outreach conference (Société Astronomique de Lyon 📍)
2021 Regional finalist for the outreach contest MT180 🏆
2019–now Member of the outreach association DéMesures 🐉
2019 Outreach nights at the Observatory of Lyon ★

Internships

- Feb. 2019 **Modelisation of slitless spectrographic observations from the Auxiliary Telescope within the framework of the Large Synoptic Survey Telescope.**
to Jun. 2019 Master 2 - Magistère 3 internship supervised by Yannick Copin, Cosmos group, IPNL
- Nov. 2018 **Developpement of a 2D hydrodynamical code and application to the modelisation of a supernova.**
to Jan. 2019 Master 2 project supervised by Jérémy Blaizot, CRAL
- Oct. 2018 **Photometric study of the open cluster NGC 1245.**
à Déc. 2019 Study made after a week spent at the Haute-Provence Observatory (OHP)
- Jan. 2018 **Effect of quasi-two-dimensional confinement on the dynamics of a plume thermal.**
to May 2018 MPhys Project supervised by Julien Landel, Manchester Centre for Nonlinear Dynamics
- Sept. 2017 **Collimation of the High Luminosity Large Hadron Collider using a Hollow Electron Lens.**
to Jan. 2018 MPhys Project supervised by Rob Appleby, Particle Physics Group (Hilumi Project)
- Jul. 2017 **Rencontres d'été de physique de l'infiniment grand à l'infiniment petit.**
Summer internship at B.Sc. level, IN2P3, Orsay
- Jun. 2017 **Implementation of a molecules detection system by induced fluorescence.**
to Jul. 2017 Licence 3 internship supervised by Hans Lignier, Aimé Cotton Laboratory (LAC)

Skills

- Physics Astrophysics & cosmology, fundamental physics, numerical simulation, etc
Simulation RAMSES-RT, MUSIC, KROME
Languages Bash, Python, Fortran, C/C++, Matlab, L^AT_EX, Git, Leekscript, Arduino & SQL

Languages

- French Native
English Proficient (EF SET C2, TOEIC 98%)
Spanish Intermediary
German Beginner

Interests

- Sports Climbing (passion since 2012, competition), ski, snowboard, scuba-diving (autonomous diver), aikido, tennis (5,5 yrs), karate (3 yrs), volley (competition, 1 yrs), etc
- Music Electric guitar (since 2010), Piano (4 yrs), Drums (1 yr)
- Travels
- o Oceania: Tahiti (8 yrs), New-Zealand, Australia, Easter Island;
 - o America: U.S.A, Canada, Hawaiï, Peru, Chili, Bolivia, Mexico;
 - o Europe: United-kingdom, Scotland, Spain, Germany, Italy, Belgium, etc.;
 - o Asie: Japan, Thailand.
- Literature Myths and epics (Gilgamesh, Nibelungen, Edda), fantasy (J.R.R. Tolkien), fantastic (H.P. Lovecraft), etc.;
- Others Environmentalism, philosophy (cynicism, critical thinking, etc.), theatre