

## Fábio Alexandre Lopes Cruz

Ph.D. candidate in Physics, Group of Lasers and Plasmas (GoLP), Instituto Superior Técnico (IST)  
@ fabio.cruz@tecnico.ulisboa.pt ☎ (+351) 918283209 📧 falcruz 🐦 @cruzfabios 🌐 fabiocruz

### Education

*Ph.D. in Physics* IST, Lisbon, Portugal, expected Spring **2021**  
*Visiting Ph.D. student* Princeton University, Princeton, NJ, USA, **2018-2019**  
*M.Sc. in Engineering Physics* IST, Lisbon, Portugal, **2015**

### Scientific research interests and expertise

Plasma physics of **extreme astrophysical scenarios** such as **neutron star** surroundings, using **massively parallel simulations** performed in **high performance computing** facilities. Development of methods and tools for **visualization of large scientific data**.

### Other experience

2019 – Present Co-creator of nata (🌐 **GoLP-IST/nata**), open-source Python package for post-processing and visualization of simulation output for particle-in-cell codes  
2019 – Present Co-creator of created 🌐 **GoLP VR Lab**, a platform to generate VR scenes from numerical simulation results for scientific outreach purposes  
2016 – 2019 CTO at **Spogui** (former spogui.com), startup web application for discovery and booking of sports venues

### Teaching / Mentorship

2017 – Present Co-supervision of undergraduate students in GoLP Research Internships  
2014 – 2016 Teaching Assistant in Classical Mechanics and Thermodynamics for Aerospace and Physics Engineering students

### Honors / Awards

Image Prize and Video Honorable Mention, American Physical Society DPP Visual Science Communication Contest **2020**  
Best Talk Prize Journal of Plasma Physics award, Les Houches School in Plasma Physics **2019**  
Young Researchers Prize, Calouste Gulbenkian Foundation **2016**  
Best Poster Prize, International School/Symposium for Space Simulations **2015**

### Publications

Complete list available on 🌐 **Google Scholar**.