

GIOVANNI TEDESCHI PRADES

- » **Status:** PhD student at the Ludwig Maximilian University of Munich
- » **Birth date:** 27/12/1998
- » **Nationalities:** Italian, Spanish
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- » **Github:** <https://github.com/Giovanni-Tedeschi>
- » **Website:** <https://giovanni-tedeschi.github.io/>



»»» Education

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|---|---|--|
| 09/2022 - Current | PhD student in Physics | Ludwig Maximilian University of Munich |
| <ul style="list-style-type: none">» PhD project: Implementing the One-Fluid model for dust dynamics in the hydrodynamical simulation code OpenGadget3.» Supervised by: Prof. Dr. Til Birnstiel; Dr. Klaus Dolag; Prof. Dr. Barbara Ercolano. | | |
| 11/2020 - 08/2022 | MSc in Physics with Specialization in Astrophysics | Ludwig Maximilian University of Munich |
| <ul style="list-style-type: none">» Master thesis: Simulating the Vertical Shear Instability in Protoplanetary Disks with PLUTO and OpenGadget3.» Credits: 120 ECTS - Final grade: 1.08. | | |
| 10/2017 - 09/2020 | BSc in Physics | "Sapienza" University of Rome |
| <ul style="list-style-type: none">» Bachelor thesis: Two possible developments of the Sedov-Taylor shock wave: the relativistic and the radiative wave.» Credits: 180 ECTS - Final grade: 110 with honors / 110. | | |

»»» Papers

- G. Tedeschi Prades, T. Birnstiel, K. Dolag, B. Ercolano, M. Hutchison, "Modeling dust dynamics in OpenGadget3. I. SPH implementation of the One-Fluid model.", *Astronomy & Astrophysics* (subm.)
- G. Tedeschi Prades, T. Birnstiel, K. Dolag, B. Ercolano, M. Hutchison, "Modeling dust dynamics in OpenGadget3. II. MFM implementation for multiple grain sizes." (in prep.)

»»» Conferences and Workshops

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| 12/2024 | Evolution of Dust and Gas throughout Cosmic Time | Hiroshima |
| » Presented a poster on my PhD research work on dust dynamics | | |
| 07/2024 | Course in Computing and HPC for Astrophysics | INAF - Bologna |
| » Attended a two weeks workshop on High Performance Computing | | |
| 02/2024 | The Physics of Star Formation | Les Houches School of Physics |
| » Attended a two weeks workshop on star formation | | |
| 09/2023 | Origin and Fate of Dust in our Universe | Chalmers conference center - Goteborg |

» Presented a poster on my PhD research work on dust dynamics

07/2023

Life Cycle of Dust

Institute of Space Sciences - Barcelona

» Attended a two weeks workshop on interstellar dust

»» Awards

06/2020

Study Scholarships - Master Studies for All Academic Disciplines

» Awarding Institution: DAAD

»» Language Skills

Mother tongues

» Italian
» Spanish

Other languages

» English - C2
» German - A1

»» Digital Skills

Programming Languages - Advanced

» C | C++ | Python | OpenMP | MPI | OpenACC

Programming Languages - Intermediate

» R | Fortran

Programming Languages - Basic

» HTML | CUDA

Machine Learning

» Tensorflow | PCA | k-means | Random Forests | CNNs | RNNs | GANs | VAEs

Quantum Computing

» Qiskit

Operative Systems

» Linux | Windows | MacOS

Various Software

» LaTeX | Microsoft Suite | Audacity | MuseScore 3

»» Projects

02/2020 - Current

Web Search Engine development and maintenance for the ATLIS archive

» I developed and maintaining a Web Search Engine for the ATLIS (Archivio delle Traduzioni di Letteratura Ispanoamericana in Italia) archive, which can be consulted at [this](#) link.