# Alessandro **Santini**

PhD candidate in Gravitational Physics

*Potsdam Science Park, Am Mühlenberg 1, D-14476 Potsdam, Germany*

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## Education

### Ph.D. in Physics

*Potsdam, Germany*

Max Planck Institute for Gravitational Physics

*2023–present*

- **Supervisors:** Dr. Jonathan Gair, Prof. Dr. Alessandra Buonanno

### Master's Degree in Astrophysics and Space Physics

*Milan (MI), Italy*

Università degli studi di Milano-Bicocca

*2021–2023*

- **final degree grade:** 110/110 with distinction (cum laude)
- **Thesis:** Black-hole mergers in disk-like environments could explain the observed $q - \chi_{\rm eff}$ correlation
- **Thesis advisors:** Prof. Davide Gerosa, Dr. Roberto Cotesta

### Bachelor's Degree in Physics

*Milan (MI), Italy*

Università degli studi di Milano-Bicocca

*2018–2021*

- **final degree grade:** 110/110 with distinction (cum laude)
- **Thesis:** Resolution of the Euler equations using the Athena++ code
- **Thesis advisor:** Prof. Bruno Giacomazzo

### High School Diploma

*Lissone (MB), Italy*

Liceo Scientifico Statale Federigo Enriques

*2013–2018*

- **Final degree grade:** 97/100

### Internships

**Erasmus+ Scholarship**

*Baltimore (MD), USA*

Johns Hopkins University

*Apr.–Jul. 2023*

## Skills

**Programming** Python (proficient) – Bash – Mathematica, C, C++ (basic)

**Other tools** Latex (proficient), Git, Microsoft Office suite

**Languages** Italian (Native), English (Fluent)

## Publication record

1. **Santini, A**; Gerosa, D.; Cotesta, R.; Berti, E.
   *"Black-hole mergers in disklike environments could explain the observed $q - \chi_{\rm eff}$ correlation"*, Phys. Rev. D 108, 083033
2. Khalvati, H; **Santini, A**; Duque, F; Speri, L; Gair, J; Yang, H; Brito, R.
   *"Impact of relativistic waveforms in LISA's science objectives with extreme-mass-ratio inspirals"*, ArXiv Preprint

## Talks, conferences & workshops

### Contributed Talks

**APS April Meeting**

*Minneapolis (MN), USA*

*Migration traps in AGN disks and hierarchical mergers as promising origin of the observed $q - \chi_{\rm eff}$ correlation*

*Apr. 2023*

**Amaldi15** *Online*

*Black-hole mergers in disk-like environments could explain the observed $q - \chi_{\rm eff}$ correlation* *July 2023*

### Contributed Posters

**15th LISA Symposium** *Dublin, Ireland*

*A flexible approach for the joint characterization of LISA instrumental noise and Stochastic Gravitational-Wave Backgrounds* *July 2024*

## Grants & Awards

2023 **DAP Travel Grant**, amount: $ 600