







Paolo Cremonese, Ph.D.

PostDoc Researcher

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About me

I am a PostDoc researcher at the Universitat de les Illes Balears, in Palma, Spain. I work on gravitational lensing of gravitational waves. I am passionate about technologies, data analysis, travelling, finance and learning new things. Like, for example, how to create a website! You can find it at paolocremonese.com, with more information about me.

Skills

Python	macOS
Linux	Mathematica
L ^A T _E X	Slurm
Git	
HTML/CSS	Apple Keynotes

Languages

Italian - Mother Tongue
English - Fluent
Spanish - Basics
Polish - Very Basic

Interests

Gravitational Waves & Lensing
Data Analysis
Finance and Investments
Sports, Books & Piano.

Work Experience

Current	PostDoc Researcher Member of LIGO collaboration. Gravitational Waves Data Analysis	UIB, Palma, Spain
2018	Internship as Data Scientist I worked in a group developing methods and knowledge on how to record and elaborate different type of data, from meteorological to industrial	DBA Group, Italy

Education

2022	Ph.D. in Physics Gravitational lensing of Gravitational Waves	Szczecin, Poland
2017	M.Sc. in Astronomy Thesis on lensing of gravitational waves done at Stockholm university	Padova, Italy & Stockholm, Sweden
2015	B.Sc. in Astronomy Thesis on dark matter in spiral galaxies	Padova, Italy

Projects

- **#research** I build and use models to analyze Gravitational Waves data with a focus on identifying lensed events. Additionally, I am actively contributing to a project aimed at organizing and automating different pipelines for the detection of such events.
- **#personalfinance #appdevelop #sideprojects** I am developing a mobile application to keep track of personal finance. This project involves the creation of a dedicated **Python** package designed to efficiently track expenses and investments. It will be openly accessible on my github page in the near future. Along with it, I am having fun coding and will soon upload a package to control Spotify custom playlists and a bot to get daily new papers from ArXiv based on user-defined topics.
- **#website** I designed and coded my own website, where I keep my info, thoughts and different things.

Main Publications

- #5 Follow-up Analyses to the O3 LIGO-Virgo-KAGRA Lensing Searches
- #4 Characteristic features of Gravitational Wave lensing as probe of lens mass model
- #3 Breaking the mass-sheet degeneracy with gravitational wave interference in lensed events
- #2 High accuracy on H measurements from gravitational wave lensing events
- #1 The lensing time delay between gravitational and electromagnetic waves

The complete list at inspirehep.net/authors/1859874

Mentions

- #2 Top ArXiv papers from week15, 2021 - S.Vagnozzi - [Link to article](#)
- #1 Constraining the Hubble Constant with Lensed Gravitational Wave Events, 2019 - K. Shin - [Link to article](#)

Main Conferences

Talks & Posters

- “Mass-Sheet Degeneracy in Gravitational Wave Lensing” @ NBI Strong Group seminar, 2023/12; LVK meeting, 2023/09
- “Wave Optics in Gravitational Wave Lensing” @ UBC Gravity seminar, 2023/09
- “Wave-optics in Gravitational Waves lensed events” @ UIB Relativity and Gravity group seminar, 2021/11
- Presented paper #3 @ GWverse, 2021/09; Gravitex 2021, 2021/08; COSMO '21, 2021/08; Amaldi 14, 2021/07 Cosmology from Home, 2021/07; Ibericos 2021/04
- Presented paper #2 @ Cosmic controversies, 2019/10
- Member of organizing committee @ The 6th Conference of the Polish Society on Relativity, 2019/09

The complete list with slides and link to conferences at paolocremonese.com/CV