



Paolo Cremonese, Ph.D.
PostDoc Researcher

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PaoloCremo

About me

I am a Postdoctoral Researcher at the UIB in Palma, Spain, specializing in gravitational lensing of gravitational waves. I have a strong passion for finance, technology, data analysis, and continuous learning, complemented by a love for travel. I love tackling challenging problems and am now seeking to leverage my analytical skills and passion for innovation in a dynamic opportunity outside of academia, where I can combine my interests in finance and technology.

Skills

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

Languages

- Italian - Mother Tongue
- English - Fluent
- Spanish - Basics

Interests

- Technology
- 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 develop tools to analyze Gravitational Waves data, focusing on finding events that are bent or magnified by massive objects (i.e. lensing). Im also working on a project to organize and automate the process of detecting these lensed events more efficiently.
- **#personalfinance** **#appdevelop** **#sideprojects** I'm developing a personalised mobile app to help manage personal finances. This includes creating a custom Python package to track expenses and investments. On the side, I'm also working on a fun project that lets me control Spotify playlists and building a bot to send daily updates of new research papers from ArXiv based on topics of interest.
- **#website** I designed and coded my own website, where I keep my info, thoughts and different things.

Main Publications

- #6 [Invariance transformations in wave-optics lensing: implications for gravitational-wave astrophysics and cosmology](#)
- #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
- “Divulgate talk on Dark matter” @ [YouTube](#), 2022/10
- “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 paolocremone.com/CV