# **PAOLO CREMONESE**

I am a PhD student at University of Szczecin, Poland.

I work on gravitational lensing of gravitational waves.

I am passionate about technologies, data analysis, travelling and learning new things. Like, for example, hot to create a website! You can find it at *paolocremonese.com*, with more information about me.

# CONTACT

paolo.cremonese@usz.edu.pl

paolocremonese.com

cosmo.usz.edu.pl/pcremonese

@paolo\_cre

in Paolo Cremonese

0000-0001-6472-8509

@PaoloCremo

### **SKILLS**

### **Programming**

Python LaTeX Mathematica

HTML/CSS

С

# **Operating Systems**

Linux MacOS Windows

Languages

Italian English Spanish

**Polish** 



Technology Data analysis

Sports

Travelling

Books

**Piano** 

# **EDUCATION**

2018 - present

**♥** University of Szczecin supervisor: V. Salzano

PhD - Astrophysics

**2015 - 2017** 

Stockholm University – Università degli studi di Padova Master's Degree - Astronomy

Bachelor's Degree - Astronomy

final result: 110L/100

supervisors: E. Mörtsell & S. Matarrese

Thesis' title: Delay in arrival time between Gravitational Waves and Electromagnetic signal due to

**Gravitational Lensing** 

**2011 - 2015** 

• Università degli studi di Padova

final result: 98/100 supervisor: A. Pizzella

Thesis' title: Dark matter in spiral galaxies

# **PUBLICATIONS**

DETAILED LIST ON PAGE 2

#4 Characteristic features of Gravitational Wave lensing as probe of lens mass model; *P. Cremonese*, *D.F. Mota*, *V. Salzano*. 2111.01163

#3 Breaking the mass-sheet degeneracy with gravitational wave interference in lensed events; P. Cremonese, J.M. Ezquiaga, V. Salzano. 2104.07055 - Phys.Rev.D 104 (2021) 2, 023503

#2 High accuracy on  $H_0$  measurements from gravitational wave lensing events; P. Cremonese, V. Salzano. 1911.11786 - Physics of the Dark Universe Vol. 28, pag. 100517, 2020

#1 The lensing time delay between gravitational and electromagnetic waves; *P. Cremonese, E. Mörtsell.* 1808.05886

# **MENTIONS**

#2 Top ArXiv papers from week 15, 2021 - S. Vagnozzi - 2021 - Link to article

#1 Constraining the Hubble Constant with Lensed Gravitational Wave Events
- K. Shin - 2019 - Link to article

# **WORK EXPERIENCE**

**OBA** group, Treviso, Italy

🛗 Feb.-July, 2018

Internship, 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.

# **CONFERENCES & DOCTORAL SCHOOL**

COMPLETE LIST ON PAGE 3

GWverse, September 2021 - Cosmo '21, August 2021 - Amaldi 14, July 2021 - Cosmology from Home, July 2021 - Workshop on Gravitational Wave Astrophysics for Early Career Scientists, May 2021 - Current challenges in gravitational physics, April 2021 - Ibericos 2021, March 2021 - IPARCOS School on Cosmology, December 2019 - Cosmic controversies. October 2019

# **PUBLICATIONS**

Full list of publication can be found (at the links) on ArXiv and on INSPIRE.

Characteristic features of Gravitational Wave lensing as probe of lens mass model

#4

**P. Cremonese**, D.F. Mota, V. Salzano

**2021** 

arXiv:2111.01163

% ADS, arXiv

Breaking the mass-sheet degeneracy with gravitational wave interference in lensed events

#3

P. Cremonese, J.M. Ezquiaga, V. Salzano

₩ 2021

Phys.Rev.D 104 (2021) 2, 023503

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High accuracy on  $\mathcal{H}_0$  measurements from gravitational wave lensing events

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Physics of the Dark Universe Vol. 28, pag. 100517, 2020

% ADS, arXiv

The lensing time delay between gravitational and electromagnetic waves

#1

**P. Cremonese**, E. Mörtsell

₩ 2018

**a**rXiv:1808.05886

% ADS, arXiv

# **RESEARCH VISITS**

### #2 - visit to **D. Keitel**

GW lensing data analysis

universitat de les Illes Balears

**1** 03/11-01/12/2021

#1 - visited D. Mota

modeling lenses in the contex of GW lensing

**1** University of Oslo

**6** 08-15/03/2020

# **CONFERENCES & DOCTORAL SCHOOLS**

### Talks & posters

### **UIB Relativity and Gravitation group seminar**

- Talk given titled "Wave-optics in Gravitational Waves lensed events"
- **m** UIB
- ## 05 November, 2021
- % web-site

#### **GWverse**

- Talk given based on 2104.07055
- **m** eCOST
- 30 August 03 September, 2021
- % web-site

#### Gravitex 2021

- Talk given based on 2104.07055
- **1** University of Kwazulu-Natal
- # 9-12 August, 2021
- % web-site

#### COSMO '21

- Poster presented based on 2104.07055
- **m** University of Illinois
- # 2-6 August, 2021
- web-site

#### Amaldi 14

- Poster presented based on 2104.07055
- 19-23 July, 2021
- web-site

### Cosmology from Home

- Talk given based on 2104.07055
- **a** @cosmofromhome
- # 5-16 July, 2021
- web-site

### Ibericos 2021

- Talk given based on 2104.07055
- m Universidade de Coimbra
- # 29 March 1 April, 2021
- % web-site

# Cosmic controversies

- Poster presented based on 1911.11786
- **m** University of Chicago
- # 5-8 October, 2019
- % web-site

### The 6th Conference of the Polish Society on Relativity

- Member of organizing committee
- m University of Szczecin
- ## 23-26 September, 2019
- % web-site

# **Participated**

### 4th Azores school on Observational Cosmology

- institute of Astrophysics and Space Sciences
- m 06-12 September, 2021
- % web-site

#### AlteCosmoFun '21

- **m** University of Szczecin
- m 06-10 September, 2021
- % web-site

### GW Open Data Workshop #4

- i LIGO Virgo Collaboration
- # 10-14 May, 2021
- % web-site

# 11th Iberian Gravitational Waves Meeting

- Astronomy and Astrophysics Department (DAA) and the Mathematics Department (DM) of the University of Valencia
- 9-11 June, 2021
- % web-site

### Workshop on Gravitational Wave Astrophysics for Early Career Scientists

- in Lorentz Center, Leiden University, the Netherlands
- # 3-7 May, 2021
- % web-site

# First EuCAPT Annual Symposium

- **m** CERN
- **5-7 May, 2021**
- % web-site

# **Current Challenges in Gravitational Physics**

- INFN erc SISSA ifpU
- ## 21-28 April, 2021
- % web-site

# **IPARCOS School on Gravitational Waves**

- universidad Compultense de Madrid
- # 18-20 December, 2019
- % web-site

# XIII Tonale Winter School on Cosmology

- i Heidelberg University, Theoretical Physics and Astrophysics institutes
- # 9-13 December, 2019
- % web-site