

ALLEGATO B

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Giulia Despali CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	DESPALI
NOME	GIULIA
DATA DI NASCITA	26/01/1987

work address: Max Planck Institute for Astrophysics, Karl-Schwarzschild-Str.1, 85748

Garching bei München, Germany

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Research experience

- **MPA postdoctoral researcher**, Max Planck Institute for Astrophysics, Garching bei München, Germany - (01/2016 - present)
- **OCEVU visiting researcher**, Laboratoire d'Astrophysique de Marseille, France -(09/2015-12/2015)
- **"Ing. A. Gini" Fellowship**, Laboratoire d'Astrophysique de Marseille, France. In collaboration with the University of Padova - (02/2015 - 08/2015)
- **visiting student** at the Laboratoire d'Astrophysique de Marseille, France, collaborating with dr. Marceau Limousin - (04/2014 - 06/2014)

Education

- **PhD in Astronomy** (20/04/2015), Department of Physics and Astronomy, University of Padova, Italy.
Title: "Ellipsoidal collapse of dark matter haloes in cosmological simulations". Supervisor: prof. Giuseppe Tormen
- **Master degree** ('Laurea specialistica' - 2011) in Astronomy, *summa cum laude* (110/100 e lode). University of Padova, Italy.
Title: "Gravitational collapse of dark matter haloes in cosmological simulations"
Supervisor: prof. Giuseppe Tormen, prof. Ravi K. Sheth (Upenn, USA)

- **Bachelor degree** ('Laurea triennale' - 2008) in Astronomy. University of Padova, Italy. Supervisor: Prof. Giuseppe Tormen
- **GRAVASCO Program** : *N-body gravitational dynamical systems from $N=2$ to infinity* IHP Paris, France (11-12/2013)
- **Erasmus student** (2008), University of Heidelberg, Germany
- **Maturità classica**, Liceo Classico Tito Livio, Padova. (100/100)

Teaching experience

Math and Physics tutor (2012-2014) for the first and second year students in astronomy at the University of Padova (150 hours)

Supervision

Co-supervisor of Mario Bonamigo's Master Degree Thesis (Supervisor Prof. Giuseppe Tormen), University of Padova. 2012

Co-supervising with dr. Simona Vegetti: PhD thesis of Wolfgang Enzi (MPA Garching) 2017-present

Publications

total number of publications: 17
total number of citations: 280 (first author: 211)
H-index: 9

2019

- *The interplay of Self-Interacting Dark Matter and baryons in shaping the halo evolution.* **Giulia Despali**, Martin Sparre, Simona Vegetti, Mark Vogelsberger, Jesús Zavala. MNRAS
<https://arxiv.org/abs/1811.02569>
- *Constraining the Mass Density of Free-Floating Black Holes using Razor-thin Lensing Arcs.* U. Banik, F.C. van den Bosch, M. Tremmel, M. Anupreeta, G. Despali, M. Surhud, S. Vegetti, J.P. McKean. MNRAS
<https://arxiv.org/abs/1811.00637>
- *Low-mass halo perturbations in strong gravitational lenses at redshift $z \sim 0.5$ are consistent with CDM.* Elisa Ritondale, Simona Vegetti, **Giulia Despali**, Matt Auger, L. Koopmans, John McKean, MNRAS
- *Gravitational lensing by field haloes along the line-of-sight: a clean test for the dark matter model,* **Giulia Despali**, Simon White, Simona Vegetti, in preparation
- *Gravitational lensing in sterile neutrino WDM models,* **Giulia Despali**, Mark Lovell, Simona Vegetti, in preparation

2018

- *Modelling the line-of-sight contribution in substructure lensing*, **Giulia Despali**, Simona Vegetti, Simon D. M. White, Carlo Giocoli, Frank C. Van den Bosch, MNRAS
<https://arxiv.org/abs/1710.05029>
- *Constraining sterile neutrino cosmologies with strong gravitational lensing observations at redshift $z \sim 0.2$* , Simona Vegetti, **Giulia Despali**, Mark Lovell, Wolfgang Enzi, MNRAS
<https://arxiv.org/abs/1801.01505>
- *Flux-ratio anomalies from discs and other baryonic structures in the Illustris simulation*, Jen-Wei Hsueh, **Giulia Despali**, Simona Vegetti, Dandan Xu, C. D. Fassnacht, R. B. Metcalf, MNRAS
<https://arxiv.org/abs/1707.07680>
- *Low-mass halo perturbations in strong gravitational lensing at redshift $z \sim 0.5$ are consistent with Λ CDM*. Elisa Ritondale, Simona Vegetti, **Giulia Despali**, M. W. Auger, L. V. E. Koopmans, J. P. McKean, submitted to MNRAS
<https://arxiv.org/abs/1811.03627>
- *Accretion of satellites on to central galaxies in clusters: merger mass ratios and orbital parameters*, Carlo Nipoti, Carlo Giocoli, **Giulia Despali**, MNRAS
<https://arxiv.org/abs/1801.03096>
- *Time delay lens modeling challenge: I. Experimental design*, Hsueh, Jen-Wei; Fassnacht, Christopher; Vegetti, Simona; Springola, Cristiana; Oldham, Lindsay; **Despali, Giulia**; Auger, Matthew; Xu, Dandan; Metcalf, Benton; McKean, John
<https://arxiv.org/abs/1801.01506>

2017

- *The impact of baryonic physics on the subhalo mass function and implications for gravitational lensing*. **Giulia Despali** and Simona Vegetti, MNRAS
<https://arxiv.org/abs/1608.06938>
- *A look into the inside of haloes: a characterization of the halo shape as a function of overdensity in the Planck cosmology*. **Giulia Despali**, Carlo Giocoli, Mario Bonamigo, Marceau Limousin, Giuseppe Tormen, MNRAS
<https://arxiv.org/abs/1605.04319>

2016

- *The universality of the virial halo mass function and models for non-universality of other halo definitions*. **Giulia Despali**, Carlo Giocoli, Raul Angulo, Giuseppe Tormen, R. K. Sheth, G. Baso, L. Moscardini. MNRAS
<https://arxiv.org/abs/1507.05627>
- *Characterizing strong lensing galaxy clusters using the Millennium-XXL and MOKA simulations*. Carlo Giocoli, M. Bonamigo, M. Meneghetti, M. Moscardini, R. Angulo, **G. Despali**, E. Jullo, MNRAS
<https://arxiv.org/abs/1604.03109>

- 2015** - *The universality of the shape of dark matter haloes over six decades in mass: insights from the Millennium XXL and Sbarbine simulations.* Mario Bonamigo, **Giulia Despali**, Marceau Limousin, Raul Angulo, Carlo Giocoli, G. Soucail, MNRAS
<https://arxiv.org/abs/1410.0015>
- 2014** - *Some like it triaxial: the universality of dark matter halo shapes and their evolution along the cosmic time.* **Giulia Despali**, Carlo Giocoli, Giuseppe Tormen. MNRAS
<https://arxiv.org/abs/1404.6527>
- 2013** - *Ellipsoidal halo finders and implications for models of triaxial halo formation.* **Giulia Despali**, Giuseppe Tormen, Ravi K. Sheth. MNRAS
<https://arxiv.org/abs/1212.4157>

Talks

- (11/2018) **Invited** talk at the OPINAS seminar, MPE, Garching
- (05/2018) **Invited** talk at the workshop “VI Meeting on Fundamental Cosmology” Granada, Spain
- (09/2018) Contributed talk at the 2018 conference “The universe as a telescope: probing the cosmos at all scales with strong lensing”, Milan, Italy
- (07/2018) Contributed talk at the conference “Shedding light on the dark universe with extremely large telescopes” ICTP Trieste, Italy
- (02/2018) Contributed talk at the workshop “Has sterile neutrino dark matter been detected?”, Lorentz Center, Leiden
- (10/2017) Contributed talk at the “Dark universe conference”, LMU Munich, Germany
- (06/2017) Contributed talk at the workshop “Aosta 2017”, Cogne, Italy
- (02/2017) Contributed talk at the “Bright and dark universe” conference, Naples, Italy
- (12/2016) Contributed talk at the “Virgo consortium meeting”, Durham, UK
- (06/2016) MPA Institute seminar, Garching
- (04/2016) Contributed talk at the workshop “Dark matter on the smallest scales”, Lorentz Center, Leiden, Netherlands
- (05/2015) Contributed talk at the conference “Olympian symposium 2015 - cosmology and the epoch of reionization”, Greece
- (11/2014) Contributed talk at the conference “Cosmology with galaxy clusters in the XXI century”, UAM Madrid, Spain
- (06/2013) Poster at the conference “Galaxies and Haloes”, Garching, Germany

Computing experience, accepted proposals and responsibilities

- Leader of the dark matter cosmological simulation projects in the cosmology group at the University of Padova, the 'SBARBINE' simulations (2014-2016). GADGET2 and GADGET3
- Analysis of large scale hydrodynamical simulations Eagle and Illustris
- 2 accepted proposals to work with the state-of-the-art IllustrisTNG simulations, TNG100 and TNG50

Other experiences

- **referee** of scientific papers for MNRAS (Monthly Notices of the Royal Astronomical Society), AAS (American Astronomical Society) and PASJ (Publications of the Astronomical Society of Japan)
- coordinator of the WEG (Women Encouragement Group) at MPA (2017-present), with the aim of raising the awareness on gender equality and career issues and creating a local network for young women researchers in Garching
- outreach experiences at the MPA 'Girl's day' (outreach and laboratory event for high-school girls from the Munich area) and the MPA 'Open day'
- LOC of the conferences "MATERa Oscura", Matera, Italy - September 2019

Languages

Italian - mother tongue
English - excellent working proficiency (C2)
German - advanced knowledge (B2)
French - basic proficiency (A2-B1)

Certificates:

- First certificate in English (level B2) - 2004 - University of Cambridge, ESOL Examinations
- Zertifikat Deutsch (level B1) - 2010 - Goethe Institut

Data

26/04/2019

Luogo

Monaco di Baviera