

JUDIT PRAT

KICP and Astronomy and Astrophysics Department, University of Chicago
Contact: jprat@astro.uchicago.edu

RESEARCH INTERESTS

Testing cosmological models, weak lensing, large-scale structure, galaxy-halo connection, combinations of cosmological probes, galaxy surveys.

POSTDOCTORAL EXPERIENCE

- 2023 ● **Schmidt AI in Science Postdoctoral Fellowship**
University of Chicago, Office of the Provost.
- 2022 ● **Postdoctoral research scholar in the [Survey Science group](#)**
- 2019 University of Chicago, Kavli Institute for Cosmological Physics (KICP) and Astronomy and Astrophysics.
Advisor: Chihway Chang.
- ⋮

EDUCATION

- 2019 ● **PhD in Physics: Probing cosmology and the galaxy-matter connection using weak lensing cross-correlations in the Dark Energy Survey** (*Awarded in 27/09/2019*)
2015 Universitat Autònoma de Barcelona (UAB) & Institut de Física d'Altes Energies (IFAE).
Advisor: Ramon Miquel.
- 2015 ● **Master (M.Sc.) in High Energy Physics, Astrophysics and Cosmology**
2014 Universitat Autònoma de Barcelona (UAB) & Institut de Física d'Altes Energies (IFAE).
Thesis: Galaxy bias from galaxy-galaxy lensing measurements in the DES Science Verification data set.
Advisor: Ramon Miquel.
- 2014 ● **Bachelor of Science in Physics (B.Sc.):** Universitat Autònoma de Barcelona (UAB), with one year
2010 exchange in University of California, Santa Barbara (UCSB).
Thesis: Exploration of Light Curves of Type II-P Supernovae, at Las Cumbres Observatory Global Telescope Network.
Advisor: Andy Howell.

PUBLICATIONS SUMMARY [From [ADS database](#)]

Total (referred) corresponding author publications: 8 (6). Citations: 185 (185).

Total (referred) publications with important contributions: 19 (14). Citations: 2457 (2402).

Total (refereed) publications: 84 (69). Citations: 4550 (4436).

h-index: 34 (33).

AWARDS

Special Award for doctoral studies by the Autonomous University of Barcelona
Dark Energy Survey (DES) builder-ship status.
Severo Ochoa PhD grant FPI, Spanish Government

2022
2021 - Present
2015 - 2019

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LEADERSHIP EXPERIENCE

Co-Convener of the Dark Energy Survey (DES) Weak Lensing Working Group.	2021 - Present
Co-Convener of the Dark Energy Survey (DES) Galaxy-Galaxy Lensing Analysis Team.	2018 - 2021

MENTORING AND SUPERVISION OF STUDENTS

Louise Gagnon (MSc, UChicago)	2022 - Present
Kihana Wilson (BSc, UChicago)	2021 - Present
Jazmine Jefferson (PhD student, co-supervision, UChicago)	2021 - Present
Nathalie Chicoine (BSc, UChicago)	2020 - Present
Georgios Zacharegkas (PhD student, co-supervision, UChicago)	2019 - Present

SERVICE AND INSTITUTIONAL RESPONSIBILITIES

LSST-DESC Collaboration Council member.	2023 - Present
NASA panel reviewer.	2022
Member of the Local Organizing Committee (LOC) for the DESC Chicago meeting	2022
Organizer of "Chicagoland Cosmology Friday" meetings.	2020 - Present
Monthly Notices of the Royal Astronomical Society referee (6 papers reviewed).	2020 - Present
Internal referee for DES publications (6 papers reviewed).	2018 - Present

INVITED TALKS

Intriguing inconsistencies in the growth of structure over cosmic time, Sesto, Italy.	Jul 2022
Guest lecture about dark energy, University of Illinois in Chicago, USA.	Apr 2022
AAS meeting, CosmoPalooza (<i>Remote</i>).	Jan 2022
Case Western Reserve University Seminar , USA.	Oct 2021
University of Michigan Seminar , USA.	Sep 2021
DAO Colloquium , Herzberg Astrophysics in Victoria, Canada (<i>Remote</i>).	May 2021
Online webinar attended by > 700 scientists. Presentation of DES Y3 cosmological 3x2pt results.	May 2021
Duke Cosmology Seminar, Duke University, USA (<i>Remote</i>).	Apr 2021
Guest lecture at Weak Gravitational Lensing Class, UChicago, USA.	Nov 2020
CCAPP Seminar, Ohio State University, USA.	Jun 2018
Plenary talk at DES Collaboration meeting, KICP, University of Chicago, USA.	Jun 2017
Plenary talk at DES Collaboration meeting, KICC, University of Cambridge, UK.	Dec 2016

DIVERSITY AND INCLUSION

Coordinator of Community Engagement Working Group within A&A Department, UChicago.	2022 - Present
Member of IDEA group within A&A Department, UChicago.	2021 - Present
Member of Community Engagement Working Group within A&A Department, UChicago.	2020 - Present
Oral presentation report on the Gender Equality Committee activities , IFAE.	May 2019
Member of the Gender Equality Committee, IFAE.	2018 - 2019

RESEARCH VISITS AND OBSERVING EXPERIENCE

3-month research visit in CCAPP, Ohio State University, USA, hosted by Prof. Klaus Honscheid.	2018
3 one-week long research visits at the University of Pennsylvania, USA, hosted by Prof. Bhuvnesh Jain.	2018
Observing for PAUS at the William Herschel Telescope (La Palma): 10 nights.	2018 - 2019

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OUTREACH

Talk about dark energy within the Life-long Learning Fermilab program (<i>remote</i>).	Sep 2021
Interview with UChicago Press release about the DES Y3 3x2pt results.	May 2021
Interview with Catalan newspaper about the DES Y3 3x2pt results.	May 2021
Participation in Ani de Anisotropia YouTube Outreach channel.	May 2021
Creation of infographic for the Dark Energy Survey.	Jan 2021
Organizer of First Outreach Symposium at KICP , University of Chicago.	Sep 2020
Talk at high-school about dark energy, IES Matadepera, Barcelona.	Jan 2019
Local radio interview by college students about the Dark Energy Survey.	Oct 2017
Talk about dark energy, Astronomical Association of Sant Cugat - Valldoreix (AASCV), Barcelona.	Oct 2017
Recording of a video with high-school students about ' Maps of dark matter ', emitted on local TV.	May 2017

OTHER TALKS, CONFERENCES AND WORKSHOPS ATTENDED

Talk at DARK seminar, University of Copenhagen, Denmark.	Dec 2022
The quest for precision Gravitational Wave Cosmology, KICP, UChicago, USA.	Sep 2022
LSST Dark Energy Science Collaboration (DESC) meeting, KICP, UChicago, USA.	Aug 2022
Higher order statistics workshop, Aspen Center for Physics, USA.	Jun 2022
LSST Dark Energy Science Collaboration (DESC) meeting (Remote).	Feb 2022
SPT x DES Workshop, Kavli Institute for Cosmological Physics, UChicago, USA.	Jun 2018
American Physical Society (APS) April Meeting, Columbus, USA.	Apr 2018
Understanding Cosmological Observations, Benasque, Spain.	Aug 2017
Summer School on Cosmology, International Center for Theoretical Physics (ICTP), Italy.	Jun 2016

DES Collaboration meetings, with contributed talks in all of them: University of Sussex, UK (Nov 2019), University of Pennsylvania, USA (June 2019), University of Campinas, Brazil (Dec 2018), Texas A&M University, USA (May 2018), University of Queensland in Brisbane, Australia (Nov 2017), Kavli Institute for Cosmological Physics, University of Chicago, USA (Jun 2017), Kavli Institute for Cosmology, University of Cambridge, UK (Dec 2016), SLAC National Accelerator Laboratory, Stanford University, USA (May 2016), Instituto de Física Teórica, Universidad Autónoma de Madrid, Spain (Oct 2015).

DES Workshops:

- Modeling Dark Energy Observations in the Nonlinear Regime, UMichigan, USA (Oct 2018).
- Y3 Key Project, CCAPP, Ohio State University, USA (Apr 2018).
- Clusters, KIPAC, SLAC National Accelerator Laboratory, Stanford University, USA (Feb 2018).

REFERENCES

Chihway Chang

Assistant professor of the Astronomy & Astrophysics department, University of Chicago
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Joshua A. Frieman

Professor and Chair of the Astronomy & Astrophysics department, University of Chicago
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Ramon Miquel

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