

Curriculum Vitae

Date of last update: August 2022

Maayane Tamar Soumagnac

Physics Department
Bar-Ilan University
maayane-tamar.soumagnac@biu.ac.il +972-58-4265686

PERSONAL DETAILS

Date and country of birth: 13 March 1987 in Paris, France
Date of immigration: 9 November 2014
Nationality: French & Israeli
Family Status: Married with three children
[Webpage](#) ; [Google Scholar page](#)

APPOINTMENTS

2021-present **SENIOR LECTURER** Physics Department, Bar-Ilan University
RESEARCH AFFILIATE Computational research Division, Lawrence Berkeley National Laboratory

2019-2021 **POST-DOCTORAL RESEARCHER** Computational research Division, Lawrence Berkeley National Laboratory, USA.
Host: Peter Nugent.
RESEARCH ASSOCIATE IN ASTROPHYSICS Weizmann Institute of Science, Israel.

2015-2019 **POST-DOCTORAL FELLOW IN ASTROPHYSICS** Weizmann Institute of Science, Israel.
Host: Avishay Gal-Yam.

HIGHER EDUCATION

2010-2015 **PHD IN PHYSICS AND ASTRONOMY** University College London, UK.
Date of award: 28 January 2015; Supervisors: Ofer Lahav, Filipe Abdalla.

2008-2010 **MASTER DEGREE IN THEORETICAL PHYSICS**
Ecole Normale Supérieure (ENS) de Lyon, France (2nd year);
Ecole Normale Supérieure (ENS) Cachan, France (1st year).

2005-2008 **BACHELOR OF SCIENCE IN PHYSICS** Ecole Normale Supérieure Cachan, France.
« **CLASSES PRÉPARATOIRES SCIENTIFIQUES** », Lycée Henri IV, France [Intense and highly selective program to prepare the “concours”, a national exam for entry to the French “Grandes Ecoles”. This program counts as 2 years of BSc in all three disciplines: Physics, Maths and Chemistry].

2005 **FRENCH “BACCALAURÉAT” IN SCIENCE**, “Mention Très Bien”, Suma Cum Laude.

Non-academic Programs

2016 summer **INTERNATIONAL SPACE UNIVERSITY (ISU)** Space Studies Program (SSP), Technion, Israel.

UNDERGRADUATE AND GRADUATE RESEARCH EXPERIENCE

Graduate Research Experience

2010-2014 **University College London**, London, United Kingdom.
UCL ASTROPHYSICS GROUP
PhD Thesis: “*Tipping scales in galaxy surveys: Star/Galaxy separation and scale-dependent bias*”.

2010 **University of Oxford**, Oxford, United Kingdom.
THE BEECROFT INSTITUTE OF PARTICLE PHYSICS AND COSMOLOGY (BIPAC)
Research Student, “Studying the formation of galactic winds”.

2009 **MIT (Massachusetts Institute of Technology)**, Cambridge, USA.
PLASMA SCIENCE AND FUSION CENTER (PSFC): Alcator C-mod project,
Research Student, "Bolometry for the Alcator C-mod Tokamak".

Undergraduate Research Experience

2008 **OMP (Observatoire Midi Pyrénées)**, Toulouse, France.
DEPARTMENT OF TERRESTRIAL AND PLANETARY DYNAMICS.
Research Student, "seismic modeling of an epicenter with the difference method".

LANGUAGES

French: native speaker; **Hebrew:** native speaker; **English:** fluent; **Italian:** Good skills; **French Sign language:** Basic skills.

SCHOLARLY POSITIONS AND ACTIVITIES

2020 **Chair of the Dark Energy Spectroscopic Instrument (DESI) Time-Domain Working Group.**
2020 **Member of the Dark Energy Spectroscopic Instrument (DESI) secondary targeting committee,** in charge of selecting impactful pilot studies to be performed by the collaboration during the "Science Verification" (SV) early phase.
2016-present **Referee,** Monthly Notices of the Royal Astronomical Society (MNRAS).
2017-2019 **Zwicky Transient Facility (ZTF) communication coordinator.**
2015-2019 **Assistant Project Scientist of the ULTRASAT satellite mission,** a collaboration between the Weizmann Institute, the Israeli Space Agency, the German DESY Research Center, the Israeli Aerospace Industries Ltd and ELOP.

RESEARCH GRANTS & FELLOWSHIPS

2022-present **Israeli Science Foundation Personal Research Grants Program.** 190,000 nis/year; 4 years.
2022-present **Israeli Science Foundation New-Faculty Equipment Grants Program.** 200,000 nis.
2016-2018 **Ilan Ramon Post-doctoral fellowship – Israeli Ministry of Science**
Two years post-doctoral fellowship.
2016 **CNES scholarship** for participation to the **International Space University (ISU).**
European Space Agency scholarship for participation to the ISU.
2015-2017 **"Volontariat International" Post-doctoral fellowship – French Embassy in Israel**
Two years postdoctoral fellowship.
2013 **Award from the Dark Energy Survey Collaboration,** Fermilab, USA.
Travel support awarded to four International participants to the Lawrence Berkeley National Laboratory Collaboration meeting.
2010-2013 **Royal Astronomical Society, UK.**
Fellow.
2007-2012 **Four years Ecole Normale Supérieure Scholarship,** France.
Scholarship from the French State, for acceptance to one of the three highly competitive and top ranked French "Grandes Ecoles".

TEACHING EXPERIENCE

2022-present **Electromagnetism and Relativity Theory.** 3rd year BA course at Bar-Ilan University.
2016-2019 **Geometrical and Wave Optics and Electromagnetism, Weizmann Institute of Science.** Lectures of the Master-level course "Experimental Astrophysics" by Prof. Avishay Gal-Yam.

SUPERVISIONS

2021-present **MSc research project supervision, BIU.** Imri Dickstein
2021-present **MSc research project supervision, BIU.** Rei Cohen
2021-present **MSc research project supervision, BIU.** Shachar Israeli
2021-present **BSc research project supervision, BIU.** Matan Ventura

- 2017 **Dr. Bessie F. Lawrence International Summer Science Institute (ISSI), Weizmann Institute of Science.** Supervision of the summer research project of two students.
- 2015-2017 **Supervision** of UCL fellow, to improve the star/galaxy separation UCL tool.
- 2016 **MSc research project supervision, Weizmann Institute of Science.** Ten weeks project, co-supervised with Pr. Avishay Gal-Yam and Pr. Oded Aharonson.

OBSERVING EXPERIENCE & OBSERVING TIME

- 2019-2020 **Lick Observatory**, San Jose, California.
- 2018-2019 **Palomar 60-inch telescope (P60) "SED Machine" spectrograph**, Palomar Mountain, California. P.I. of a 10 hours program to compute a survey of "interacting" Supernovae (SNe IIn).
- 2016-present **The Swift NASA space telescope**, successful applications to observing time in Target Of Opportunity (ToO) mode.
- 2016 **Kraar Observatory**, Rehovot, Israel.
- 2013 **Blanco 4m telescope, Cerro Tololo Inter-American Observatory**, Chile. DECam observations.

MEMBERSHIP IN INTERNATIONAL COLLABORATIONS

- 2019-present **Dark Energy Spectroscopic Instrument (DESI).**
- 2017-2020 **Zwicky Transient Facility (ZTF).**
- 2010-2015 **Dark Energy Survey (DES).** Data rights granted beyond 2015 for substantial infrastructure work.

SELECTED TALKS & SEMINARS

- 2022 **Dark Energy Spectroscopic Instrument (DESI) Collaboration Meeting** (Berkeley). *"MOST Hosts: updates and first results"*.
- 2021 **Dark Energy Spectroscopic Instrument (DESI) Collaboration Meeting** (remote). *"An Update on MOST Hosts: a DESI catalog of the hosts of all supernovae from blind, wide-field, optical surveys"*.
- 2021 **Chandra Data Science Meeting Invited speaker.** *"The search for (the shortest) X-ray transients"*.
- 2020 **The Racah Institute of Physics (Hebrew University) Astrolunch.** *"Observational Transient Astrophysics in the era of « big data », DESI and the ULTRASAT satellite"*.
- 2020 **Seminar at the department of Physics of the Technion.** *"Observational Transient Astrophysics in the era of « big data », DESI and the ULTRASAT satellite"*.
- 2020 **Seminar at the department of Physics of Ben Gurion University.** *"Observational Transient Astrophysics in the era of « big data », DESI and the ULTRASAT satellite"*.
- 2020 **Seminar at the department of Physics of Bar-Ilan University.** *"Observational Transient Astrophysics in the era of « big data », DESI and the ULTRASAT satellite"*.
- 2020 **Dark Energy Spectroscopic Instrument (DESI) Collaboration Meeting,** *"A DESI catalog of the hosts of all supernovae from blind, wide-field, optical surveys"*.
- 2019 **Zwicky Transient Facility (ZTF) Collaboration Meeting**, Seattle, USA. *"Computing a catalog of ZTF transients hosts observed with DESI"*.
- 2019 **UC Berkeley and UC Santa Cruz Seminars day**, Berkeley, USA. *"Computing a catalog of ZTF transients hosts observed with DESI; Hunting X-ray outbursts in archival data"*.
- 2018 **UC Berkeley Astrophysics Seminar**, Berkeley, USA. *"PTF 12glz: a possible shock driven through an aspherical wind"*.
- 2018 **Shocking Supernovae Conference**, Stockholm, Sweden. *"PTF12glz and supernovae shocks driven through aspherical winds"*.
- 2018 **Technion Astrophysics group Seminar**, Haifa, Israel. *"Supernova PTF 12glz: a possible shock driven through an aspherical wind"*.
- 2017 **Israeli Physics Society (IPS) Conference**, Haifa, Israel. *"A glimpse at tye IIn Supernovae"*.
- 2017 **UV Sky surveys meeting**, Tel Aviv, Israel. *"Unveiling the stellar environment with SNe explosions and eclipses"*.
- 2016 **Tel Aviv University Astronomy Club Conference**, Tel Aviv, Israel. *"Unveiling the UV transient sky with the ULTRASAT satellite"*.
- 2015 **66th International Astronautical Congress (IAC) - Symposium on Technological Requirements for Future Space Astronomy and Solar System Science Mission**, Jerusalem, Israel. *"A Survey of Eclipsing Binaries with the ULTRASAT Satellite"*.

- 2015 **Weizmann Institute Physic department lunch seminars**, Rehovot, Israel. *"The inflated Hot Jupiters puzzle"*.
- 2015 **Dark Energy Survey collaboration meeting**, Michigan, USA. *"Star/Galaxy Separation on the Science Verification data and Year one data"*.
- 2013 **Dark Energy Survey collaboration meeting**, Barcelona, Spain. *"Spotlight talk: Star/Galaxy Separation on the Science Verification data"*.
- 2013 **Dark Energy Survey collaboration meeting**, Berkeley, USA. *"Spotlight talk: presenting the Star/Galaxy Separation paper"*.
- 2013 **Weizmann Institute Astrophysics Seminar**, Rehovot, Israel. *"Machine learning methods applied to the Dark Energy Survey"*.
- 2013 **Tel Aviv University Astrophysics Seminar**, Tel Aviv, Israel. *"Machine learning methods applied to the Dark Energy Survey"*.
- 2012 **Dark Energy Survey collaboration meeting**, Garching, Germany. *"Star/Galaxy Separation, Last Updates"*.
- 2011 **Cosmic Flows Conference**, Haifa, Israel. *"Machine learning methods applied to the Dark Energy Survey"*.
- 2011 **London Cosmology Discussion Meeting (LCDM)**, London, UK. *"Machine learning methods applied to the Dark Energy Survey"*.
- 2011 **Dark Energy Survey collaboration meeting**, Philadelphia, USA. *"Star/Galaxy Separation, a multi-parameter approach"*.
- 2011 **Dark Energy Survey collaboration meeting**, Porstmouth, UK.
- 2011 **DES-UCL Meeting**, London, UK. *"Star/Galaxy Separation, Last Updates"*.

PUBLIC OUTREACH (SELECTED TALKS)

- 2020 **Lecture about the Physics Nobel prize**, as part of a program for high school teachers at the Hebrew University, Jerusalem.
- 2019 **Lecture at the "Beit Chinuch" high school** in Jerusalem.
- 2019 **Evening Astronomy classes at the Davidson Institute**. As part of a program for precocious children.
- 2018 **Lecture at the Blue Hall Pub**, as part of the "International Space Week".
- 2018 **Lecture at the Christ Church high school of Nazareth**, as part of the Weizmann Institute "Rishonot Ba Mada" program for linking female students in the STEM fields with various schools in Israel.
- 2017 **Invited speaker at "Taasieda"**, a year-long program bringing space industries to Israeli high schools.
- 2017 **Lecture at the "Shekulo tov" group**, for people with psychiatric disabilities.
- 2016 **Lecture to the "Science sparks"**, a program to promote science education within the Israeli Ethiopian community (Rehovot, Israel).
- 2016 **Lecture to soldiers and officers of the Air Force Intelligence Branch** (Rehovot, Israel).
- 2015 **Astronomy at the Tel Aviv French school**, lecture to children of ages 6 to 16 at the Marc Chagall French school (Tel Aviv, Israel).
- 2015 **Astronomy with holocaust survivors** AMCHA center (Rehovot, Israel)
- 2015 **Astronomy in the "Gaza envelope"**, Israel. Lecture in several communities affected by shelling during the 2014 conflict (Talmey Yosef, Israel).
- 2015 **Lecture at the women prison Neve Tirza**, Lecture to the prisoners (Ramle, Israel).
- 2014 **Stargazing at Middlebury Language school**, Middlebury College. Design of a program of stargazing nights and guided visits at the Middlebury observatory (Vermont, USA).
- 2013 **University of London Observatory in Mill Hill**, University of London, a guide for the 2012/2013 season of public tours, (London, UK).
- 2013 **WOW talk at London Apple Store**, Public talk: "Why become an Astrophysicist?" (London, UK).
- 2013 **Israel Space week and Space Education Conference**, Herzliya, Israel. Guide for School visits

