TOMAS ALBERTO CASSANELLI

PERSONAL INFORMATION

Nationality	Chilean and Italian.
Date of birth	12 October 1989
Office Address	50 St. George Street, Toronto, ON M5S 3H4.
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EDUCATION

January 2018 - Present	**Astronomy & Astrophysics PhD student**. University of Toronto, Canada.
October 2015 - October 2017	**Astrophysics Master of Science**. Universität Bonn, Germany.
March 2009 - January 2015	**Civil Industrial Engineering with a Major in Mechanics**. Universidad de La Frontera, Chile.
August 2010 - August 2014	**Applied Physics Bachelors Degree**. Universidad de La Frontera, Chile.

AWARDS

2018	"Verein der Freunde und Förderer des Max-Planck-Institut für Radioastronomie e.V." Master of science thesis annual award, Germany. Three referees delivered the judgement: *excellent*.
2017	Becas Chile (Conicyt): "Becas doctorado en el extranjero 2017" complete funding for up to four years in a foreign PhD program. Government of Chile.
2010, 2011 and 2012	Excellence Academic Award. Universidad de la Frontera, Chile.

RESEARCH EXPERIENCE

November 2017 - December 2017	Part time scientist: Out-of-focus holography at the Effelsberg telescope. Max-Planck-Institut für Radioastronomie, Germany.
November 2016 - October 2017	MSc thesis project: Systematic measurements of the surface of the 100-m radio telescope using the out-of-focus holography method. Supervisor: Dr. Karl Menten at Max-Planck-Institut für Radioastronomie, Germany.
September 2016 - October 2016	Internship: A new method to determine a pulsar period: the PCA Waterfall. Department of Information Engineering, Università di Padova, Italy. Supervisor: Dr. Giampiero Naletto.
July 2016 - August 2016	Internship: Angular momenta in dark matter subhalos (simulation). Argelander Institut für Astronomie, Universität Bonn, Germany. Supervisor: Dr. Cristiano Porciani.
January 2015 - March 2015	Internship: Photometry of three cataclysmic variables. Cerro Tololo Inter-American Observatory (CTIO), Chile. Supervisor: Dr. Timothy Abbott.
September 2014 - January 2014	Engineering thesis project: Vibration analysis on astronomical instrumentation due to transport operations. Atacama Large Millimeter/submillimeter Array (ALMA), Chile. Supervisor: Mechanical Engineer Armin Silber (ALMA Cryogenics) and Dr. Juan Möller (Universidad de La Frontera).
February 2014 - March 2014	Project: Amplitude calibration device graphic user interface. ALMA, Chile. Supervisor: Electronic Engineer Jaime Guarda.

May 2012 - December 2013 Project: Condense matter physics and statistical physics: percolation of discrete sites. Universidad de La Frontera, Chile.
Supervisor: Dr. Eugenio Vogel.

REFEREED PUBLICATIONS

2020 Scholz et al., incl. **Cassanelli**. "Simultaneous X-ray and Radio Observations of the Repeating Fast Radio Burst FRB 180916.J0158+65", submitted to The Astrophysical Journal.

2020 Chawla et al., incl. **Cassanelli**. "Detection of Repeating FRB 180916.J0158+65 Down to Frequencies of 300 MHz", submitted to The Astrophysical Journal Letters.

2020 Fonseca et al., incl. **Cassanelli**. "Nine New Repeating Fast Radio Burst Sources from CHIME/FRB", The Astrophysical Journal.

2020 Marcote et al., incl. **Cassanelli**. "A repeating fast radio burst source localized to a nearby spiral galaxy", Nature.

2019 CHIME/FRB Collaboration et al., incl. **Cassanelli**. "CHIME/FRB Discovery of Eight New Repeating Fast Radio Burst Sources", The Astrophysical Journal.

2019 CHIME/FRB Collaboration et al., incl. **Cassanelli**. "A second source of repeating fast radio bursts", Nature.

TEACHING EXPERIENCE

January 2020 - April 2020 Teaching Assistant for Astrophysics of Planetary Systems (ASTC25) winter term. University of Toronto Scarborough, Canada.

January 2020 - April 2020 Teaching Assistant for Advanced Computational Methods in Physics (PHYD57) winter term. University of Toronto Scarborough, Canada.

January 2020 - April 2020 Teaching Assistant for Stars and Galaxies (AST201) winter term. University of Toronto, Canada.

September 2019 - April 2020 Teaching Assistant for Practical Astronomy (AST326) fall and winter terms. University of Toronto, Canada.

September 2019 - December 2019 Teaching Assistant for Introduction to Practical Astronomy (AST325) fall term. University of Toronto, Canada.

7–12 July 2019 Dunlap Instrumentation Summer School. Lead lecturer and facilitator in the interferometry laboratory. Dunlap Institute, University of Toronto, Canada.

May 2019 - June 2019 Teaching Assistant for Great Moments in Astronomy (ASTB03) summer term. University of Toronto Scarborough, Canada.

May 2019 - June 2019 Teaching Assistant for The Sun and Its Neighbours (AST101) summer term. University of Toronto, Canada.

January 2019 - April 2019 Teaching Assistant for Stars and Galaxies (AST201) winter term. University of Toronto, Canada.

May 2018 - June 2018 Teaching Assistant for The Sun and Its Neighbours (AST101) summer term. University of Toronto, Canada.

January 2018 - April 2018 Teaching Assistant for Stars and Galaxies (AST201) winter term. University of Toronto, Canada.

April 2015 - August 2015 Mechanics lecturer at the Physics Department, Universidad de La Frontera, Chile.

April 2015 - August 2015 Dynamics lecturer at the Mechanical Engineering Department, Universidad de La Frontera, Chile.

May 2010 - December 2014 Teaching Assistant for civil engineering students in Calculus I, Calculus II, Calculus III, Differential Equations, General Physics, Physics II, Modern Physics, Fundamental Mathematics, Complex Variable and Mechanics. Universidad de La Frontera, Chile.

CONFERENCE TALKS

9–11 December 2019	Science at Low Frequencies (SALF). Arizona State University, Tempe, Arizona, USA. Fast Radio Burst Localization with VLBI.
17–20 June 2019	Canadian Astronomical Society (CASCA) Annual Meeting. McGill University, Montreal, Canada. VLBI Efforts in support of CHIME/FRB.
20–21 February 2018	Effelsberg Science Workshop Max-Planck-Institut für Radioastronomie, Germany. Systematic measurements of the surface of the 100-m radio telescope using the Out-of-focus holography method.
23–24 January 2014	Third Cycle of Cosmology, Gravitation and Quantum Field Theory. Universidad de La Frontera, Chile. Presenting Gross-Neveu model.
5–6 December 2013	Magnetism and Statistical Physics. Universidad de La Frontera, Chile. Presenting percolation through silver nano-particles.

CONFERENCE POSTERS

4–8 January 2016	American Astronomical Society (227^{th}AAS Meeting) Florida, USA. Presenting photometry of the old nova HZ Pup.
26–28 November 2014	Sociedad Chilena de Física (Chilean Physics Society). Universidad de Concepción, Chile. Presenting percolation through silver nano-particles.
27–29 October 2013	Chile-Mexico V Workshop on Magnetism, Nanosciences and their applications. Los Ándes, Chile.Presenting percolation through silver nano-particles.

WORKSHOPS AND SEMINARS

3–12 July 2017	1^{st} OPTICON Instrumentation School. University of Copenhagen, Denmark.
14–19 August 2016	Dunlap Summer School: Introduction to Astronomical Instrumentation. University of Toronto, Canada.
10–20 May 2016	International Max Planck Research School for Astronomy and Astrophysics. Max-Planck-Institut für Radioastronomie, Germany. Statistics and Data Modeling by Dr. Douglas Applegate.

OTHER

January 2019	Radio Interview with Interview Bio-Bio La Radio, Chile. Científicos detectan por segunda vez misteriosas ondas de radio desde una galaxia lejana.
January 2019	Public Talk at Universidad de La Frontera, Temuco, Chile. Fast Radio Bursts, el Último Misterio Astronómico.
2018 - Present	Outreach events: Astronomy on Tap, Space Time, Doors Open TO, and Skype a Scientist. Toronto, Canada.
December 2012 - December 2013	President of ASTROUFRO, group orientated in promoting public knowledge of astronomy. Universidad de La Frontera, Chile.
September 2009 - September 2010	General Secretary of the Civil Industrial Engineering student's union. Universidad de La Frontera, Chile.
Languages	Spanish (Español Chile) — Native speaker. English — Professional working proficiency. Italian — Elementary proficiency. German — Elementary proficiency.

COMPUTING SKILLS

Operating systems	Linux, Mac and Windows.
Languages	Arduino, bash, C, C++, CASA, Git, IRAF, Open MPI, Matlab, and Python (astropy).
Markup languages	HTML, LaTeX, Gnuplot and Tikz.

Productive tools Abaqus, Ansys, CATIA, LibreOffice and Office.