JUAN DIEGO SOLER

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EDUCATION

Sep. 2007 - Sep. 2013	**Ph.D. Astronomy and Astrophysics**
	University of Toronto. Toronto, Canada.
	"*In Search of an Imprint of Magnetization in the Balloon-borne Observations of the Polarized Dust Emission from Molecular Clouds*"
	Advisor: Pr. Barth Netterfield
	Jury: Pr. M. Houde, Pr. P. Martin, Pr. D.-S. Moon, Pr. C. Matzner.
Sep. 2004 - Sep. 2006	**M.Sc. Physics**
	Universidad de los Andes. Bogotá, Colombia.
	"*Imaging and tomography with silicon microstrip detectors*"
	Advisor: Pr. Carlos A. Avila
Sep. 1999 - Sep. 2004	**B.Sc. Physics**
	Universidad de los Andes. Bogotá, Colombia.

PROFESSIONAL APPOINTMENTS

Jan. 2017 - present	**Post-doctoral Fellow.** Max-Planck-Institut für Astronomie, Germany. ERC project *"The HI/OH/Recombination line survey of the inner Milky Way (THOR)"* directed by Dr. Henrik Beuther.
Sep. 2015 - Jan. 2017	**Post-doctoral Fellow.** Service d'Astrophysique, CEA, France. ERC project *"From the magnetized diffuse interstellar medium to the stars"* directed by Dr. Patrick Hennebelle.
Sep. 2013 - Sep. 2015	**Post-doctoral Fellow.** Institut d'Astrophysique Spatiale. France. ERC project *"Mastering the dusty and magnetized interstellar screen to test inflation cosmology"* directed by Dr. Francois Boulanger.
Sep. 2008 - Sep. 2013	**Research Assistant.** University of Toronto. Toronto, Canada.
Sep. 2007 - Sep. 2008	**Teaching Assistant.** University of Toronto. Toronto, Canada.
Sep. 2006 - Sep. 2007	**Research Assistant.** CIEMAT. Madrid, Spain. Study of intensity-modulated radiation therapy (IMRT) in the Unit of Medical Physics directed by Dr. Miguel Embid Segura
Jan. 2004 - Sep. 2006	**Teaching Assistant.** Universidad de los Andes. Bogotá, Colombia.

RESEARCH INTERESTS

Interstellar medium
Study of the Galactic magnetic field and its role in the formation of density structures, from molecular clouds to prestellar cores.
- Comparison between simulations of magnetohydrodynamic turbulence and observations of the dust polarized thermal emission.
- Analysis of polarization observations by the Planck and BLASTPol.

Instrumentation
- Characterization of the new polarization experiments NIKA2 and BLAST-TNG.
- Mechanical and thermal design of balloon-borne telescopes BLASTPol and Spider.

PUBLICATIONS AND COMMUNICATIONS

Publications	44 articles in indexed journals, 8 as corresponding author. 7 conference procedures.
Presentations	32 oral presentations in seminars and international conferences (since PhD defense).

HONORABLE MENTIONS

2012	Carl Reinhardt Fellowship in Astronomy. University of Toronto.
2011	Antarctica Service Medal. United States Department of Defense.

RESPONSIBILITIES

2017 - present	Junior project co-supervisor with Prof. Henrik Beuther. Henrik Ruh (Heidelberg University, undergraduate student).
2013 - 2017	Organization of the seminar "*ISM Jam: Magnetic fields in the interstellar medium*" in cooperation with researchers from the CEA, ENS, and IAS.
2013 - present	Member of the Planck core team.
2013	Junior project co-supervisor with Prof. Barth Netterfield. Ivan Padilla (University of Toronto, graduate student).
2012	Summer project co-supervisor with Prof. Barth Netterfield. Steven Li (University of Toronto, undergraduate student).
2010 - present	Contributor to the science sections of the digital and printed editions of *El Espectador* and *El Tiempo* newspapers (Colombia).
2008 - present	Member of the BLASTPol and Spider core teams.

LANGUAGES

Spanish	Mother tongue.
English	Fluent written and spoken.
French	Intermediate written and spoken.
German	Basic.

COMPUTER SKILLS

Programming	Fluent in IDL and Python. Advanced in C and C++.
Softwares	Fluent in Autocad including ThermalDesktop and RADCad packages. Fluent in SolidWorks including Simulation package.