

Juan Mena-Parra

Kavli Fellow

CONTACT INFORMATION

Massachusetts Institute of Technology
MIT Kavli Institute for Astrophysics and Space Research
77 Massachusetts Avenue, 37-621
Cambridge, MA, 02139 USA
Email: jdmjena@mit.edu
Web: space.mit.edu/people/mena-parra-juan

RESEARCH INTERESTS

Observational cosmology, dark energy, hydrogen intensity mapping, fast radio bursts, radio astronomy, large radio telescope arrays, correlators, instrumentation, calibration, data analysis

ACADEMIC APPOINTMENTS

Kavli Fellow, MIT Kavli Institute for Astrophysics and Space Research 2018-present

EDUCATION

PhD Physics, McGill University (Canada) 2013-2018
Thesis: Correlator and calibration for the Canadian Hydrogen Intensity Mapping Experiment (CHIME)
Advisor: Matt Dobbs

MSc Physics, McGill University (Canada) 2012-2013
Thesis: A Radio-Frequency-over-Fiber link for large-array radio astronomy applications
Advisor: Matt Dobbs

BSc Joint Honours Mathematics and Physics, McGill University (Canada) 2009-2012

BEng Electronic Engineering, Universidad de Antioquia (Colombia) 2001-2006

HONOURS AND AWARDS

Kavli Postdoctoral Fellowship in Astrophysics, MIT Kavli Institute for Astrophysics and Space Research 2018-2022

FRQNT Postdoctoral Research Fellowship, Fonds de Recherche du Québec - Nature et Technologies 2018-2020

NSERC Alexander Graham Bell Canada Graduate Scholarship-Doctoral, Natural Sciences and Engineering Research Council of Canada 2014-2017

FRQNT Doctoral Research Scholarship (Declined), Fonds de Recherche du Québec - Nature et Technologies 2014-2017

Grad Excellence Award, McGill University 2013-2015

FRQNT Master's Research Scholarship , Fonds de Recherche du Québec - Nature et Technologies	2013-2014
Lorne Trottier Fellowship , McGill University	2013
David Stewart Fellowship , McGill University	2012-2013
Graduation Honours: High distinction and First Class , Joint Honours Mathematics and Physics, McGill University	2012
NSERC Undergraduate Student Research Award (USRA) , Natural Sciences and Engineering Research Council of Canada	2011
Graduation Honours: Highest cumulative GPA in Electronic Engineering program , Universidad de Antioquia	2006

TEACHING EXPERIENCE

Guest Lecturer and Project Head Instructor, Computational Data Science in Physics Massachusetts Institute of Technology, Department of Physics	2021
Teaching Assistant, Signal Processing McGill University, Department of Physics	2012-2017
Teaching Assistant, Electronics McGill University, Department of Physics	2012-2017

MENTORSHIP AND SUPERVISION

Savannah Cary, undergraduate research Wellesley College	2020-present
Haochen Wang, graduate research (PhD) Massachusetts Institute of Technology	2019-present
Calvin Leung, graduate research (PhD) Massachusetts Institute of Technology	2018-present
Honggeun Kim, graduate research (PhD) Massachusetts Institute of Technology	2018-2019
Mohit Bhardwaj, graduate research (PhD) McGill University	2017-2018
Paula Boubel, graduate research (MSc) McGill University	2017-2018

RELEVANT WORK EXPERIENCE

Field Service Engineer , General Médica de Colombia S.A. (Colombia) Diagnostic Imaging: Ultrasound, X-Ray, Nuclear Medicine	2007-2009
Engineering Intern , UNE EPM Telecomunicaciones (Colombia) Research and Development, Telecommunications	2005