Ana-Maria A. Piso

CONTACT INFORMATION

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EDUCATION

Harvard University, Cambridge, MA

Ph.D., Astronomy & Astrophysics, April 2016
Advisor: Prof. Karin Öberg
Thesis Title: "Origins of Gas Giant Compositions: The Role of Disk Location and Dynamics"

Harvard University, Cambridge, MA

A.M., Astronomy & Astrophysics, May 2013
Advisor: Dr. Ruth Murray-Clay
Research Exam Project: "On the Minimum Core Mass for Giant Planet Formation"

Massachusetts Institute of Technology, Cambridge, MA

S.B., Physics, June 2010
S.B., Mathematics, June 2010

RESEARCH EXPERIENCE & EMPLOYMENT

Postdoctoral Scholar **September 2016 - present**
UCLA, Department of Earth, Planetary, and Space Sciences *Los Angeles, CA*
Advisor: Prof. Hilke Schlichting

Postdoctoral Fellow **July 2016 - August 2016**
Harvard College Observatory *Cambridge, MA*
Advisor: Prof. Karin Öberg

Research assistant **August 2010 - July 2011**
MIT, EAPS Department *Cambridge, MA*
Project: The Magnetic Field Signature of Super Earths
Advisor: Prof. Sara Seager

Undergraduate researcher **June 2008 - June 2010**
MIT, Kavli Institute or Astrophysics *Cambridge, MA*
Project: The Solar Wind (2008) & Structure of Accretion Disks (2009 - 2010)
Advisors: Dr. Paola Rebusco & Prof. Edmund Bertschinger

Research assistant **June 2009 - August 2009**
Vienna University of Technology (TU Wien) *Vienna, Austria*
Project: Exact relativistic viscous fluid solutions in near horizon extremal Kerr background
Advisor: Dr. Daniel Grumiller

Undergraduate researcher **January 2007 - August 2007**
MIT, Laboratory of Nuclear Science *Cambridge, MA*
Project: Dark Matter Direct Detection
Advisors: Prof. Gabriela Sciolla & Dr. Denis Dujmic

Assistant manager **November 2005 - June 2006**
Neuron Group S.R.L. Software Company *Bucharest, Romania*
Digital map designer and database manager for the '112 Emergency Call Center' project

Teaching & Outreach

Organizer of UCLA iPLEX Lunch Talks **April 2017 - present**
Coordinator of weekly seminars in the Institute for Planets and Exoplanets *Los Angeles, CA*

Judge in the Los Angeles Basin EPS Student Research Symposium **April 2017**
Provided evaluations and feedback on science presentations by graduate and undergraduate students in Earth and Planetary Science *Los Angeles, CA*

WISTEM Program Mentor **September 2013 - May 2016**
Mentor for a Harvard College undergraduate *Cambridge, MA*

MIT Educational Counselor **December 2011 - present**
Interviewer for prospective undergraduate students *Cambridge, MA*

Science Club For Girls Mentor Scientist **September 2014 - May 2015**
Taught second grade girls at the Amigos School the class "Sound & Light" *Cambridge, MA*

CfA Summer Mentor **June 2014 - August 2014**
Co-mentored an REU summer student *Cambridge, MA*

Co-Organizer of Harvard Graduate Student Prospective Visits **March 2013**
Organized and coordinated meetings and activities for two groups of 10 prospective graduate students each *Cambridge, MA*

Teaching Fellow **February 2012 - May 2012**
Harvard College class SPU 30: Life as a Planetary Phenomenon *Cambridge, MA*
Course Head: Prof. Dimitar Sasselov
Held two weekly two-hour sections

Refereed Publications

Piso, A.-M. A., Pegues, J., & Öberg, K.I. *The Role of Ice Compositions and Morphology For Snowlines and the C/N/O Ratios in Active Disks.* ApJ, 2016, 833, 203

Piso, A.-M. A., Öberg, K. I., Birnstiel, T., & Murray-Clay, R. A. *C/O and Snowline Locations in Protoplanetary Disks: The Effect of Radial Drift and Viscous Gas Accretion.* ApJ, 2015, 815, 109

Piso, A.-M. A., Youdin, A. N., & Murray-Clay, R. A. *Minimum Core Masses for Giant Planet Formation with Realistic Equations of State and Opacities.* ApJ, 2015, 800, 82

Piso, A.-M. A. & Youdin, A. N. *On the Minimum Core Mass for Giant Planet Formation at Wide Separations.* ApJ, 2014, 786, 21

Online Publications & Educational Material

The Solar Wind
(Mathematica Demonstration Project: http://demonstrations.wolfram.com/TheSolarWind/)
Author: Ana-Maria Piso

The Interplanetary Magnetic Field (Parker Spiral)
(Mathematica Demonstration Project:
http://demonstrations.wolfram.com/TheInterplanetaryMagneticFieldParkerSpiral/
Author: Ana-Maria Piso

Invited Talks

The Role of Ice Compositions and Disk Dynamics for Snowlines and the C/N/O Ratios in Active Disks
AAS Inner Solar Systems Meeting, Austin, TX, June 2017
Invited talk

Origins of Gas Giant Compositions: The Role of Disk Location and Dynamics
Caltech Planetary Science Seminar, Pasadena, CA, February 2017

Origins of Gas Giant Compositions: The Role of Disk Location and Dynamics
iPLEX Lunch Seminar, Los Angeles, CA, September 2016

Giant Planet Formation and Snowlines in Protoplanetary Disks
MIT Planetary Lunch Colloquium Series, Cambridge, MA, March 2016

Giant Planet Formation and Snowlines in Protoplanetary Disks
CfA Small Scale Seminar, Cambridge, MA, February 2016

Giant Planet Formation and Snowlines in Protoplanetary Disks
University of Michigan Astronomy Lunch Talk, Ann Arbor, MI, November 2015

Giant Planet Formation and Snowlines in Protoplanetary Disks
University of Chicago Exoplanet Journal Club, Chicago, IL, November 2015

Giant Planet Formation and Snowlines in Protoplanetary Disks
MIT Exoplanet Tea, Cambridge, MA, October 2015

Giant Planet Formation and Snowlines in Protoplanetary Disks
Center for Integrative Planetary Science Planet and Star Formation Seminar, Berkeley, CA, September 2015

The Solar Wind
Vienna Theory Lunch Club, TU Wien, Vienna, Austria, June 2009

Contributed Talks and Seminars

The Role of Disk Volatile Chemistry and Dynamics in Shaping the Compositions of Nascent Planets
AAS 227^{th} Meeting, Kissimmee, FL, January 2016
Dissertation talk

Minimum Core Masses for Giant Planet Formation
CfA Exoplanet Pizza Lunch, Cambridge, MA, May 2015

Minimum Core Masses for Giant Planet Formation
Star and Planet Formation in the Southwest, Oracle, AZ, March 2015

On the Minimum Core Mass for Giant Planet Formation
CfA Exoplanet Pizza Lunch, Cambridge, MA, November 2013

On the Minimum Core Mass for Giant Planet Formation
IAUS 299: Exploring the Formation and Evolution of Planetary Systems, Victoria, BC, June 2013

Posters

C/O and Snowline Locations in Protoplanetary Disks: The Effect of Radial Drift and Viscous Gas Accretion

Extreme Solar Systems III, Waikoloa Village, HI, December 2015

On the Minimum Core Mass for Giant Planet Formation
Protostars and Planets VI, Heidelberg, Germany, July 2013

The Structure and Stability of Atmospheres Accreting around Protoplanetary Cores
Exoplanets in Multi-body Systems in the Kepler Era, Aspen, CO, February 2013

Magnetic field signature of Super Earths
AAS 217^{th} Meeting, Washington, Seattle, January 2011
Poster

Exact relativistic viscous fluid solutions in NHEK background
APS April Meeting, Washington, DC, February 2010

Professional Activities & Service

American Physical Society member
American Astronomical Society member
Reviewer for ApJ

Skills

Languages: Fluent in Romanian, English and Spanish, Conversant in German, Basics in French
Computer: Python, Mathematica, Matlab, LaTeX, C++, ROOT, Mac OS, Windows 2000/XP/Vista, Microsoft Office, Corel, Database Desktop