

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

UCLA, Department of Earth, Planetary, and Space Sciences

Advisor: Prof. Hilke Schlichting

September 2016 - present

Los Angeles, CA

Postdoctoral Fellow

Harvard College Observatory

Advisor: Prof. Karin Öberg

July 2016 - August 2016

Cambridge, MA

Research assistant

MIT, EAPS Department

Project: The Magnetic Field Signature of Super Earths

Advisor: Prof. Sara Seager

August 2010 - July 2011

Cambridge, MA

Undergraduate researcher

MIT, Kavli Institute of Astrophysics

Project: The Solar Wind (2008) & Structure of Accretion Disks (2009 - 2010)

Advisors: Dr. Paola Rebusco & Prof. Edmund Bertschinger

June 2008 - June 2010

Cambridge, MA

Research assistant

Vienna University of Technology (TU Wien)

Project: Exact relativistic viscous fluid solutions in near horizon extremal Kerr background

Advisor: Dr. Daniel Grumiller

June 2009 - August 2009

Vienna, Austria

Undergraduate researcher

MIT, Laboratory of Nuclear Science

Project: Dark Matter Direct Detection

Advisors: Prof. Gabriela Sciolla & Dr. Denis Dujmic

January 2007 - August 2007

Cambridge, MA

Assistant manager

Neuron Group S.R.L. Software Company

Digital map designer and database manager for the '112 Emergency Call Center' project

November 2005 - June 2006

Bucharest, Romania

TEACHING &
OUTREACH

WISTEM Program Mentor

Mentor for a Harvard College undergraduate

September 2013 - May 2016

Cambridge, MA

MIT Educational Counselor

Interviewer for prospective undergraduate students

December 2011 - present

Cambridge, MA

Science Club For Girls Mentor Scientist

Taught second grade girls at the Amigos School the class “Sound & Light” *Cambridge, MA*

September 2014 - May 2015

CfA Summer Mentor

Co-mentored an REU summer student

June 2014 - August 2014

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

Harvard College class SPU 30: Life as a Planetary Phenomenon

Course Head: Prof. Dimitar Sasselov

Held two weekly two-hour sections

February 2012 - May 2012

Cambridge, MA

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, accepted: arXiv:1611.00741

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

CONFERENCES AND
SEMINARS

Origins of Gas Giant Compositions: The Role of Disk Location and Dynamics

iPLEX Lunch Seminar, Los Angeles, CA, September 2016

Invited talk

Giant Planet Formation and Snowlines in Protoplanetary Disks

MIT Planetary Lunch Colloquium Series, Cambridge, MA, March 2016

Invited talk

Giant Planet Formation and Snowlines in Protoplanetary Disks

CfA Small Scale Seminar, Cambridge, MA, February 2016

Invited talk

The Role of Disk Volatile Chemistry and Dynamics in Shaping the Compositions of Nascent Planets

AAS 227th Meeting, Kissimmee, FL, January 2016

Dissertation talk

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

Poster

Giant Planet Formation and Snowlines in Protoplanetary Disks

University of Michigan Astronomy Lunch Talk, Ann Arbor, MI, November 2015

Seminar speaker

Giant Planet Formation and Snowlines in Protoplanetary Disks

University of Chicago Exoplanet Journal Club, Chicago, IL, November 2015

Seminar speaker

Giant Planet Formation and Snowlines in Protoplanetary Disks

MIT Exoplanet Tea, Cambridge, MA, October 2015

Seminar speaker

Giant Planet Formation and Snowlines in Protoplanetary Disks

Center for Integrative Planetary Science Planet and Star Formation Seminar, Berkeley, CA, September 2015

Invited talk

Minimum Core Masses for Giant Planet Formation

CfA Exoplanet Pizza Lunch, Cambridge, MA, May 2015

Internal department talk

Minimum Core Masses for Giant Planet Formation

Star and Planet Formation in the Southwest, Oracle, AZ, March 2015

Contributed talk

On the Minimum Core Mass for Giant Planet Formation

CfA Exoplanet Pizza Lunch, Cambridge, MA, November 2013

Internal department talk

On the Minimum Core Mass for Giant Planet Formation

Protostars and Planets VI, Heidelberg, Germany, July 2013

Poster

On the Minimum Core Mass for Giant Planet Formation

IAUS 299: Exploring the Formation and Evolution of Planetary Systems, Victoria, BC, June 2013

Contributed talk

The Structure and Stability of Atmospheres Accreting around Protoplanetary Cores

Exoplanets in Multi-body Systems in the Kepler Era, Aspen, CO, February 2013

Poster

Magnetic field signature of Super Earths

AAS 217th Meeting, Washington, Seattle, January 2011

Poster

Exact relativistic viscous fluid solutions in NHEK background

APS April Meeting, Washington, DC, February 2010

Poster

The Solar Wind

Vienna Theory Lunch Club, TU Wien, Vienna, Austria, June 2009

Invited talk

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