

## Ana-Maria A. Piso

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### CONTACT INFORMATION

Harvard-Smithsonian Center for Astrophysics  
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### EDUCATION

#### **Harvard University**, Cambridge, MA

Ph.D., Astronomy & Astrophysics, May 2016 (expected)  
Advisor: Dr. Karin Öberg  
Thesis Topic: “The Effect of Disk Chemistry and Dynamics in Shaping Volatile Snowlines”

#### **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      Major GPA: 4.6/5.0  
S.B., Mathematics, June 2010      Major GPA: 4.8/5.0

### RESEARCH EXPERIENCE & EMPLOYMENT

#### **Research assistant**

**August 2010 - July 2011**

MIT, EAPS Department  
Project: The Magnetic Field Signature of Super Earths  
Advisor: Prof. Sara Seager

*Cambridge, MA*

#### **Undergraduate researcher**

**June 2008 - June 2010**

MIT, Kavli Institute for Astrophysics  
Project: The Solar Wind (2008) & Structure of Accretion Disks (2009 - 2010)  
Advisors: Dr. Paola Rebusco & Prof. Edmund Bertschinger

*Cambridge, MA*

#### **Research assistant**

**June 2009 - August 2009**

Vienna University of Technology (TU Wien)  
Project: Exact relativistic viscous fluid solutions in near horizon extremal Kerr background  
Advisor: Dr. Daniel Grumiller

*Vienna, Austria*

#### **Undergraduate researcher**

**January 2007 - August 2007**

MIT, Laboratory of Nuclear Science  
Project: Dark Matter Direct Detection  
Advisors: Prof. Gabriela Sciolla & Dr. Denis Dujmic

*Cambridge, MA*

#### **Assistant manager**

**November 2005 - June 2006**

Neuron Group S.R.L. Software Company  
Digital map designer and database manager for the '112 Emergency Call Center' national project

*Bucharest, Romania*

### TEACHING & OUTREACH

#### **Teaching Fellow**

**February 2012 - May 2012**

Harvard College class SPU 30: Life as a Planetary Phenomenon  
Course Head: Prof. Dimitar Sasselov  
Held two weekly two-hour sections

*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*

**WISTEM Program Mentor**

Mentor for a Harvard College undergraduate

**September 2013 - present**

*Cambridge, MA*

**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*

REFEREED  
PUBLICATIONS

**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, under review

**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

PUBLICATIONS IN  
PREPARATION

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

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

**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

Seminar speaker

**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 217<sup>th</sup> 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

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