

**Chronology of Education**

- 1995-2000 5-year Researcher-track Physics, University of Szeged  
Multi-year undergraduate research projects in theory of ultrashort laser pulse propagation in non-linear media, femtosecond laser pulse compression via optimized combination of chirped mirrors, globular cluster photometry
- 1998-1999 Physics, University of Jena  
2000 Researcher-grade Diploma in Physics (MSc equivalent), University of Szeged  
Thesis Title: *Multi-wavelength study of ultracompact HII regions*  
Advisor: Thomas Henning (Univ. Jena)
- 2000-2002 PhD Student, Astronomical Institute, University of Jena  
2002-2004 PhD Student, Max Planck Institute for Astronomy, Heidelberg  
Title: *Exploring the Environment of Young Stars: Disks, Companions, and Clusters*  
Advisor: Thomas Henning

**Degrees**

- 2000 Researcher Grade (5-yr) Diploma in Physics  
2004 PhD, University of Heidelberg, Astronomy

Major Fields: Physics, Astronomy

**Chronology of Employment**

- 2000 Research Assistant, Tautenburg Observatory, Germany  
2004 Postdoctoral Researcher, Steward Observatory and NASA Astrobiology Institute, The University of Arizona  
2008 Assistant Astronomer, Science Policies Group, Space Telescope Science Institute, Baltimore  
2011- Assistant Professor, Steward Observatory and Dept. of Astronomy, Lunar and Planetary Laboratory. Dept. of Planetary Sciences, The University of Arizona

**Honors and Awards**

- 1998 Erasmus Scholarship of the European Union to Univ. Jena, Germany  
1999 Scholarship of the Hungarian Republic, awarded by the Minister of Education  
2000 PhD Fellowship of the German Academic Exchange Service (DAAD)  
2004 Max Planck Institute's Patzer Price for Outstanding PhD Dissertation of the Year  
2012 Tinsley Visiting Scholar, Astronomy Department, University of Texas

**Major Telescope Time Awards as PI include:**

- 4 recent HST programs (124 orbits in total)
- Cycle-9 Spitzer Exploration Science Program *Extrasolar Storms* (PI: Apai 1,144h Spitzer time and 28 HST orbits)

- 8 VLT programs (>14 nights), 2 LBT programs

### **Recent Service and Outreach**

#### **National Committees**

Executive Committee member of the Southwestern and Rocky Mountain Division of the American Associations for the Advancement of Sciences (AAAS)

#### **Study Groups**

NASA Exoplanet Analysis Group - Study Analysis Group #5, 2012

*Flagship Exoplanet Imaging Mission Science Goals and Requirements*

NASA Exoplanet Analysis Group - Study Analysis Group #9, 2013

*Flagship Exoplanet Imaging Mission Science Goals and Requirements*

NASA Astrobiology Roadmap Definition Team, 2013

#### **Service as Reviewer:**

##### **Journal Referee:**

*Science* (2 manuscripts),

*Astrophysical Journal* (2-3 manuscripts each year)

*Astronomy & Astrophysics* (1-2 manuscripts each year)

*Publications of the Astronomical Society of the Pacific* (1 manuscript),

*Elements* special issue (1 manuscript)

##### **Review Panels (US):**

National Science Foundation's *Exoplanets* panel

Spitzer Space Telescope Time Allocation Committee

NASA Small Bodies Database

Hubble Space Telescope Director's Discretionary Time Committee

Hubble Space Telescope Time Allocation Committee

NASA *Origins of Solar Systems* program

NSF *Research Experience for Undergraduates* Program

NASA Astrobiology Institute Director's Discretionary Funds

NASA *Postdoctoral Fellowship* program (3 times)

Giacconi Postdoctoral Fellowship Committee

##### **International Review Panels:**

International Representative to the European Southern Observatory Time Allocation Committee (2 times)

Reviewer, Joint Research Actions program (large-scale university-wide efforts) at the Universite of Liege, Belgium

Swiss National Science Foundation

Hungarian Science Foundation

##### **Professional Service in Support of the Hubble Space Telescope Mission**

2010 Editor, Cycle-19 HST Call for Proposals

2010 Organizer, Galactic Astronomy/Solar System/Exoplanets review panels for HST Time Allocation Committee

- 2009 Editor, Cycle–18 HST Call for Proposals  
 2009 Analysis of HST’s Science Impact, Productivity, and Time Allocation Policy

### Meeting Organization

- 2014 Co-Chair (SOC & LOC), *Search for Life Beyond the Solar System, Tucson*  
 ~250 participant major international meeting on the astronomical search for life in the universe and the instrumentation required for it  
 2014 Co-convener, Session *Clouds in Brown Dwarfs & Exoplanets*,  
 American Astronomical Society Winter 2014 meeting(session proposal pending)  
 2013 SOC, Bioastronomy 2013, Santiago, Chile  
 2012 Convener, Splinter Session “*Clouds in Brown Dwarfs & Exoplanets*”,  
 Cool Stars 17, Barcelona  
 2010 Organizing Committee, *STScI May Symposium on Dark Matter*, Baltimore  
 2010 Head of Organizing Committee, Workshop, *Volatile Delivery to Habitable Planets*  
 Space Telescope Science Institute, Baltimore  
 2010 Co-organizer of workshop *Dust from the ISM to Rocky Planets*, Budapest  
 2010 Invited Convener, *Stellar and Cometary Mineralogy*, International Mineralogical  
 Association Meeting, Budapest  
 2009- Organizer, STScI–JHU Astrobiology Lecture Series: *Life, Planets, and Universe*  
 2009 Organizing Committee, Decadal Survey Townhall Discussion, Baltimore  
 2009 SOC, Beyond JWST: Next Steps in UV/OPT/NIR Space Astronomy, Baltimore

### Outreach

*Exploring New Worlds*

Academic Village, Tucson

*Hunt for Other Earths*

Steward Observatory Public Lectures

*Hunt for Other Earths*

Science Cafe, Tucson

Professional Consultant for *Stars*, a non-fiction book for fourth-graders,  
 CapStone Press, 2010

Hubble Briefings for Educators and NASA Solar System Ambassadors, 2010

*The Grand Tour of Exoplanets - Our Search for the Worlds beyond the Solar System*

STScI Public Lecture, 2010

*The Grand Tour of Exoplanets - Our Search for the Worlds beyond the Solar System*

STScI Public Lecture, 2009

*Toward Earth's Origins: A Voyage through Astronomy, Meteoritics, and Deserts*

**Publications** (Published or Accepted)

**Books**

*Protoplanetary Dust: The Astrophysical and Cosmochemical Perspectives*

Editors: D. Apai and D. Lauretta

Planetary Science Series, Cambridge University Press, 2010

300 pp., 21 authors, 40 referees

This book integrates the astronomical and cosmochemical evidence on planet formation; invited, refereed review chapters are written by astronomer-cosmochemist author pairs.

**Stars**

Children's book for fourth-graders, by K. C. Asselin; Consultant: D. Apai

32 pages, Capstone Publishers, 2010

**Book Chapters (refereed review chapters)**

**D. Apai**, D. Lauretta, review in *Protoplanetary Dust* book, eds: Apai & Lauretta, Cambridge Univ. Press, 2010, *Protoplanetary Dust and Planet Formation*

**D. Apai**, H. C. Connolly, Jr., D. Lauretta, review in *Protoplanetary Dust* (Cambridge Univ. Press, 2010, *Thermal processing in Protoplanetary Nebulae*

**Refereed Journal Articles**

64 refereed articles, 1,600+ citations, h index = 25

Number of refereed papers published since at current rank: 40

\* - based on work done as graduate student (advised or co-advised by Apai);

@ - based on work done as undergraduate student (advised or co-advised by Apai)

# - based on work done as postdoc advised by Apai

64 Bonnefoy, Boccaletti, Lagrange, Allard, Mordasini, Beust, Chauvin, Girard, Homeier, Apai, Lacour, Rouan 2013, A&A, in press (12 pp)

The Near-Infrared Spectral Energy Distribution of  $\beta$  Pictoris b

63 Mohanty, Greaves, Mortlock, Pascucci, Scholz, Thompson, **Apai**, Lodato, Looper 2013, ApJ, in press (about 25 pages)

*Protoplanetary Disk Masses from Stars to Brown Dwarfs*

62 **Apai**, Radigan, Buenzli, Burrows, Reid, Jayawardhana 2013 ApJ 768, 121 (15pp)

*HST Spectral Mapping of L/T Transition Brown Dwarfs Reveals Cloud Thickness Variations*

61 Heinze, Metchev, **Apai**, Flateau, Kurtev, Marley, Radigan, Burgasser, Artigau, Plavchan 2013 ApJ 767, 173 (17pp)

*Weather on Other Worlds I: Detection of Periodic Variability in the L3 Dwarf DENIS-P J1058 with Precise Multi-wavelength Photometry*

\*60 Rogers, Lopez-Morales, **Apai**, Adams 2013 ApJ 767, 64 (22pp)

*Benchmark Tests for Markov Chain Monte Carlo Fitting of Exoplanet Eclipse Observations*

59 **Apai** 2013 Astronomische Nachrichten 334, 57 (Invited review, 6pp)

*Protoplanetary disks and planet formation around brown dwarfs and very low-mass stars*

58 Metchev, **Apai**, Radigan, et al. 2013 Astronomische Nachrichten 334, 40-43

*Clouds in Brown Dwarfs and Giant Planets*

\*57 Kostov, **Apai** 2013 ApJ 762, 47 (16 pp)

*Phase Mapping of Directly Imaged Giant Exoplanets*

#56 Buenzli, **Apai**, Morley, Flateau, Showman, Burrows, Marley, Lewis, Reid 2012 ApJL 760, L31 (6pp)

*Vertical Atmospheric Structure in a Variable Brown Dwarf: Pressure-Dependent Phase Shifts in Simultaneous Hubble Space Telescope-Spitzer Light Curves*

@55 Szulagyi, Pascucci, Abraham, **Apai**, Bouwman, Moor 2012 ApJ 759, 47 (14pp)

*Observational Constraints on the Stellar Radiation Field Impinging on Transitional Disk Atmospheres*

54 Robberto, Spina, Da Rio, **Apai**, Pascucci, Ricci, Goddi, Testi, Palla, Bacciotti 2012 AJ 144, 83 (23pp) *An HST Imaging Survey of Low-mass Stars in the Chamaeleon I Star-forming Region*

53 Skemer, Hinz et al. (incl. **Apai**) 2012 ApJ 753, 14 (12pp)

*First Light LBT AO Images of HR 8799bcde at 1.6 and 3.3 micron: New Discrepancies between Young Planets and Old Brown Dwarfs*

- 52 Rodigas et al. (incl. **Apai**) 2012 ApJ 752, 57-69 (13pp)  
*The Gray Needle: Large Grains in the HD 15115 Debris Disk from LBT Ks and L' AO Imaging*
- 51 Chauvin, Lagrange, Beust, Bonnefoy, Boccaletti, **Apai**, Ehrenreich, Girard, Mouillet, Rouan  
2012 A&A 542, 41 (9 pp)  
*Orbital Characterization of the  $\beta$  Pictoris b giant planet*
- 50 Lagrange et al. (incl. **Apai**) 2012 A&A 542, 40 (12 pp)  
*The Position of  $\beta$  Pictoris b relative to the debris disk*
- 49 Quanz, Birkman, **Apai**, Wolf, Henning 2012 A&A 538, 92 (6 pp)  
*Resolving the inner regions of the HD 97048 disk - NACO Polarimetric Differential Imaging*
- 48 Moór, Abraham, Juhasz, Kiss, Pascucci, Kospal, **Apai**, Henning, Csengeri, Grady 2011 ApJ  
740, 7 (6pp)  
*Molecular Gas in Young Debris Disks*
- 47 Kun et al. (incl. **Apai**) 2011 ApJ 733, 8 (6pp)  
*A Peculiar Young Eruptive Star in the Dark Cloud Lynds 1340*
- 46 Skemer, Close, Szucs, **Apai**, Pascucci, Biller 2011 ApJ 732, 107 (14 pp)  
*Evidence Against an Edge-On Disk Around the Extrasolar Planet 2MASS1207b*
- 45 Teske, Najita, Carr, Pascucci, **Apai**, Henning 2011 ApJ 734, 27 (9 pp)  
*Measuring Organic Molecular Emission in Disks with Low Resolution Spitzer Spectroscopy*
- 44 Currie et al. (incl. **Apai**) 2011 ApJ 729, 128 (20 pp)  
*A Combined Subaru/VLT/MMT 1-5 $\mu$ m study of the Atmospheres of Planets Orbiting HR8799*
- 43 Bonnefoy, Lagrange, Boccaletti, Chauvin, Apai et al. 2011 A&AL 528, 11 (5 pp)  
*High-resolution images of Beta Pic b at 2.18 micron*
- 42 Quanz et al. (incl. **Apai**) 2010 ApJ 722, 49 (4 pp)  
*First Results from the NACO Apodizing Phase Plane: 4 micron Images of Beta Pic b*
- 41 Kun et al. (incl. **Apai**) 2011 MNRAS 413, 2689-2695  
*Inner Disc Rearrangement in the Young Star PV Cep*
- 40 Moór et al. (incl. **Apai**) 2011 ApJS 193, 4 (25 pp)  
*Structure and Evolution of Debris Disks around F stars I. Observations, database and basic evolutionary aspects*
- @39 Szűcs, **Apai**, Pascucci, Dullemond 2010 ApJ 720, 1668 (6 pp)  
*Stellar-mass dependent Disk Structure in Protoplanetary Disks*
- 38 Lagrange, Bonnefoy, Chauvin, **D. Apai**, et al. 2010 Science 329, 57 (4 pp)  
*A Giant Planet Imaged in the disk of the Young Star Beta Pictoris*
- 37 López-Morales, Coughlin, Sing, Burrows, **D. Apai**, Rogers, Spiegel, 2010, ApJ 726, 36 (5 pp)  
*Day-Side z'-band Emission and Eccentricity of WASP-12b*

- 36 **Apai**, Lagerstrom, Reid, Levay, Nota, Henneken 2010 PASP 122, 808 (19 pp)  
*Lessons from a High-Impact Observatory: Science Impact and Productivity of the Hubble Space Telescope between 1998 and 2008*
- \*35 Rogers, **Apai**, Lopez-Morales, Sing, A. Burrows, 2009 1ApJ 2009 707, 1707 (10 pp)  
*Ks-band Detection of Thermal Emission and Color Constraints to CoRoT-1b: A Low-albedo Planet with Inefficient Atmospheric Energy Redistribution and Temperature Inversion*
- 34 Grady and 26 authors, including **D. Apai**, 2009 ApJ 699, 1822 (21 pp)  
*Revealing the Structure of a Pre-Transitional Disk: The Case of the Herbig F Star HD 135344B*
- 33 Janson, **Apai**, M. Zechmeister, W. Brandner, M. Kürster, M. Kasper, S. Reffert, M. Endl, D. Lafreniere, K. Geißler, S. Hippler, Th. Henning, 2009 MNRAS 399, 1707 (8 pp)  
*Imaging search for the unseen companion to  $\epsilon$  Ind A - Improving the detection limits with 4  $\mu$ m observations*
- 32 Lagrange, Kasper, Boccaletti, Chauvin, Gratadour, Fusco, Ehrenreich, **Apai**, Mouillet 2009 A&A 506, 927 (8 pp)  
*Constraining the Orbit of the Possible Companion to Beta Pictoris – New Deep Imaging*
- 31 Moór, **Apai**, Pascucci, Abraham, Grady, Henning, Juhász, Kiss, Kóspál 2009 ApJ 700, L25 (5 pp): *The discovery of New Warm Debris Disks around F-type Stars*
- 30 **D. Apai** 2009 Earth, Moon & Planets, 105, 311 (Invited review, 10 pp)  
*The Origins of Planetary Systems: Constraints and Challenges*
- 29 G. Meeus, A. Juhász, Th. Henning, J. Bouwman, C. Chen, Lawson, **D. Apai**, I. Pascucci, Sicilia-Aguilar 2009 A&A, 497, 379 (14 pp)  
*MBM 12: Young Protoplanetary Disks at High Galactic Latitude*
- 28 **D. Apai**, D. Laretta 2010, review in *Protoplanetary Dust* book, Cambridge Univ. Press  
*Protoplanetary Dust and Planet Formation*
- 27 I. Pascucci, **D. Apai**, K. Luhman et al. 2009 ApJ 696, 143 (17 pp)  
*The different evolution of gas and dust in disks around sun-like and cool stars*
- 26 A. Gáspár, G. H. Rieke, K. Y. L. Su, Z. Balog, D. Trilling, J. Muzzerole, **D. Apai**, Kelly, B. 2009 ApJ 697, 1578 (19 pp) :  
*The low level of debris disk activity at the time of the Late Heavy Bombardment: a Spitzer study of Praesepe*
- 25 **D. Apai**, H. C. Connolly, Jr., D. Laretta 2010, review in *Protoplanetary Dust* (Cambridge University Press): *Thermal processing in Protoplanetary Nebulae*
- 24 A. Juhász, Th. Henning, J. Bouwman, C. P. Dullemond, I. Pascucci, **D. Apai** 2009 ApJ 695, 1024 (18 pp) : *Do we really know the dust? Systematics and Uncertainties of the spectral decomposition method*
- 23 Á. Kóspál, P. Abraham, **D. Apai**, D. R. Ardila, C. A. Grady, Th. Henning, A. Juhász, W. D. Miller, A. Moór 2008 MNRAS 383, 1015 (14 pp):

*High-resolution polarimetry of Parsamian 21: revealing the structure of an edge-on FU Ori disc*

22 **D. Apai**, M. Janson, A. Moro–Martín, M. R. Meyer et al. 2008 ApJ 672, 1196 (6 pp)  
*A Survey for Massive Giant Planets in Debris Disks with Evacuated Inner Cavities*

21 I. Pascucci, **D. Apai**, E. Hardegree-Ullman, J.-S. Kim, J. Bouwman, M. R. Meyer 2008 ApJ 673, 477 (10 pp)  
*Intermediate-separation binaries do not affect the early stages of planet formation*

20 M. Kasper, **D. Apai**, M. Janson, W. Brandner 2007 A&A 472, 312 (7 pp)  
*An L-band imaging search for giant planets in the Tucana and  $\beta$  Pictoris moving groups*

19 S. P. Quanz, **D. Apai**, Th. Henning 2007 ApJ 656, 287 (6 pp)  
*Dust Rings and Filaments around the Isolated Young Star V1331 Cygni*

18 **D. Apai**, A. Bik, L. Kaper, Th. Henning, H. Zinnecker 2007 ApJ 655, 484 (11 pp)  
*Massive Binaries in High-Mass Star-Forming Regions: A Multi-Epoch Radial Velocity Survey of Embedded O-Stars*

17 C. P. Dullemond, **D. Apai**, S. Walch 2006 ApJ 640, 67 (4 pp)  
*Crystalline silicates as a probe of disk formation history*

16 A. Móor, P. Ábrahám, A. Derekas, Cs. Kiss, L. L. Kiss, **D. Apai**, C. Grady, Th. Henning 2006 ApJ 644, 525 (18 pp)  
*Nearby debris disk systems with high fractional luminosity reconsidered*

15 **D. Apai**, I. Pascucci, J. Bouwman, A. Natta, Th. Henning, C. P. Dullemond 2005 Science 310, 834 (4 pp): *The onset of planet formation in brown dwarf disks*

14 E. Puga, M. Feldt, C. Alvarez, Th. Henning, **D. Apai**, E. Le Coared, A. Chalabaev, B. Stecklum 2006 ApJ 641, 373 (10 pp): *Outflows, disks, and stellar content in a region of high-mass star formation: G5.89-0.39 with adaptive optics*

13 **D. Apai**, H. Linz, Th. Henning, B. Stecklum 2005 A&A 434, 987 (17 pp): *Infrared portrait of the nearby massive star-forming region IRAS 09002-4732*

12 **D. Apai**, L. V. Tóth, Th. Henning, R. Vavrek, Z. Kovács, D. Lemke (4 pp)  
2005 A&A 433, L33: *HST/NICMOS observations of a proto-brown dwarf candidate*

11 M. F. Sterzik, I. Pascucci, **D. Apai**, N. van der Bliet, C. P. Dullemond (6 pp)  
2004 A&A 427, 245: *Evolution of young brown dwarf disks in the mid-infrared*

10 **D. Apai**, I. Pascucci, M. F. Sterzik, N. van der Bliet, J. Bouwman, C. P. Dullemond, Th. Henning 2004 A&A 426, L53 (5 pp)  
*Grain growth and dust settling in a brown dwarf disk. Gemini/TReCS observations of CFHT-BD-Tau 4*

9 H. Wang, Th. Henning, **D. Apai**, R. Mundt 2004 ApJ 617, 1191 (13 pp): *Optical Outflows in the R Coronae Australis Molecular Cloud*

8 I. Pascucci, **D. Apai**, B. Stecklum, Th. Henning, B. Brandl 2004 A&A 426, 523 (12 pp): *The Hot Core – UCHII Connection in G10.47*



- 7 M. Kun, **D. Apai**, I. Pascucci, S. Nikolic, M. Eredics, 2004, *BaltA*, 13, 434 (5 pp):  
*Initial Conditions of Low, Intermediate and High Mass Star Formation*
- 6 C. Grady, B. Woodgate, C. A. O. Torres, Th. Henning, **D. Apai**, and 11 coauthors 2004 *ApJ* 608, 809 (22 pp): *The Environment of the Optically Brightest Herbig Ae Star HD 104237*
- 5 H. Wang, **D. Apai**, Th. Henning, I. Pascucci 2004 *ApJ* 601, L83 (4 pp):  
*FU Orionis – A Binary Star?*
- 4 **D. Apai**, I. Pascucci, W. Brandner, Th. Henning, R. Lenzen, D. E. Potter, A.-M. Lagrange, G. Rousset 2004 *A&A* 415, 671 (6 pp)  
*NACO Polarimetric Differential Imaging of TW Hya: A Sharp Look at the Closest T Tauri Disk*
- 3 I. Pascucci, **D. Apai**, Th. Henning, C. P. Dullemond 2003 *ApJ* 590, L111 (4 pp):  
*The First Detailed Look at a Brown Dwarf Disk*
- 2 R. Klein, **D. Apai**, I. Pascucci, Th. Henning, L. B. F. M. Waters 2003 *ApJ* 593, L57 (4 pp):  
*First Detection of Millimeter Dust Emission from Brown Dwarf Disks*
- 1 **D. Apai**, I. Pascucci, Th. Henning and 4 coauthors 2002 *ApJ* 573, L115 (3 pp):  
*Probing Dust around Brown Dwarfs: The naked LP 944-20 and the Disk of ChaH $\alpha$ 2*

### **Electronic Publication (Non-peer-reviewed)**

About 30 non-refereed publications - full list is available on request or through [ADS Link](#)

Selected recent non-refereed publications:

Apai, Buenzli, Radigan, Burrows, Metchev, Flateau, Reid, Heinze, Jayawardhana 2013 *AAS* 221, 158.28: *HST and Spitzer Rotational Phase Mapping of Brown Dwarf Atmospheres*

Pascucci, Apai 2012 Lunar and Planetary Science Conf. Abstracts, LPI 1659, 1244  
*Stellar-mass-dependent Evolution of Planet-forming Disks*

Quanz, Schmid, Birkmann, Apai, Wolf, Brandner, Meyer, Henning 2011 *ESO Messenger* 146, 25  
*Resolving the Inner Regions of Circumstellar Discs with VLT/NACO Polarimetric Differential Imaging*

Gucsik, Endo, Nakazato, Nishido, et al. (incl. Apai) 2011 Lunar and Planetary Science Conf. Abstracts 1608, 1157  
*Cathodoluminescence Characterization of the Forsterite in Kaba Meteorite: An Astromineralogical Application*

Kasper, Amico, Pompei, Ageorges, **Apai**, et al. *ESO* 2009 *Messenger* 137, 8  
*Direct Imaging of Exoplanets and Brown Dwarfs with the VLT/NACO Pupil-Stabilized Lyot Coronagraphy at 4 micron*

**Work in Progress**

(only includes manuscript in submitted or in advanced state)

Kospal, Moor, Juhasz, Abraham, **Apai**, Csengeri, Grady, Henning, Hughes, Kiss, Pascucci, Schmalzl 2013, ApJ, submitted (11 pp)  
*ALMA Observations of the Molecular Gas in the Debris Disk of the 30 Myr Old Star HD 21997*

#Buenzli, **Apai**, Radigan, Reid, Flateau 2013 ApJ submitted, under review (~25 pages):  
*Brown Dwarf Photospheres are Heterogeneous: An HST Near-Infrared Spectroscopic Survey Finds Frequent Low-Level Variability*

**Apai**, Schneider, Grady, Wyatt, Kuchner, Lagrange, Stark, Lubow 2013 ApJ,  
 (submission foreseen in July 2013)  
*Disk-Planet Coupling in Beta Pictoris: HST/STIS Coronagraphy of the Inner Disk*

\*Flateau, **Apai**, Metchev, Marley, et al. 2013 ApJ (submission foreseen Aug 2013)  
*Light Curve Evolution is Common in Variable Brown Dwarfs*

Moor, Juhasz, Kospal, Abraham, **Apai** et al. 2013 ApJ, submitted  
*ALMA continuum observations of a 30 Myr old gaseous debris disk around HD 21997*

Close, Follette, K., Males, Puglisi, Xompero, **Apai**, Najita, Weinberger, Morzinski, Rodigas, Hinz, Bailey, Briguglio 2013, ApJ Letters, submitted  
*Discovery of H-alpha Emission from the Close 83 Milliarcsec Separation Companion inside the Transitional Disk HD142527 with MagAO*

**Conferences/Scholarly Presentations** (Limited to period in current rank)

Exoclimes 2014, Davos, Switzerland, Invited Review Talk, Feb 2014

*The Brown Dwarfs - Exoplanet Connection*

Padova Observatory, Italy, Seminar, July 2013

*Extrasolar Storms: Mapping Clouds in Brown Dwarfs and Exoplanets*

Grenoble Observatory, France, Seminar, July 2013

*Extrasolar Storms: Mapping Clouds in Brown Dwarfs and Exoplanets*

Vatican Observatory, Seminar, July 2013

*Extrasolar Storms: Mapping Clouds in Brown Dwarfs and Exoplanets*

Konkoly Observatory, Seminar, July 2013

*Extrasolar Storms: Mapping Clouds in Brown Dwarfs and Exoplanets*

ESO Garching, Seminar, June 2013

*Extrasolar Storms: Mapping Clouds in Brown Dwarfs and Exoplanets*

Invited Talk, NASA Astrobiology Institute Director's Seminar Series, March 2013

*Exploring New Worlds*

Invited Review Talk, Cool Stars 17, June 2012

*Protoplanetary Disks around Cool Stars and Brown Dwarfs*

Colloquium, University of Texas at Austin, March 2012, Tinsley Lecturer (invited)

*Phase Mapping of Exoplanets and Brown Dwarfs*

Colloquium, Northern Arizona University, Flagstaff 2012

*Exploring Other Worlds*

STScI/JHU Astrobiology Lectures, Invited Lecture

*Planet Formation and Exoplanets*

Applied Mathematics Seminar, Oct 2011, Invited Seminar

*Exoplanet Detection and Characterization*

Jet Propulsion Laboratory, Oct 2011, Astrophysics Colloquium,

*Phase Mapping of Exoplanets and Brown Dwarfs*

IPAC/Caltech, Oct 2011

*Phase Mapping of Exoplanets and Brown Dwarfs*

Exploring Strange Worlds, Flagstaff, May 2011, Contributed Talk

*Phase Mapping of Exoplanets and Brown Dwarfs*

Carnegie Institute Seminars, Washington, Oct 2010, Invited Colloquium

*Exploring the Cool Atmospheres of Hot Planets*

Volatile Delivery Workshop, Baltimore, Sep 2010, Contributed Talk

*The Nitrogen Problem: Constraints on Delivery to Rocky Planets*

International Mineralogical Association Meeting, Budapest, Aug 2010, Contributed Talk

*A Possible Nitrogen Barrier to Life around Cool Stars*

Dust to Rocky Planets, Budapest, Aug 2010, Review Talk

*Protoplanetary Disk Evolution and Early Solar System Chronology*

Meteoritical Society Meeting, New York, July 2010, Contributed Talk

*A Possible Nitrogen Barrier to Life around Cool Stars*

Disks, Meteorites, and Planetesimals Workshop, New York, July 2010, Invited Talk

*Thermal Processing and Mixing in Protoplanetary Disks*

Steward Obs. and LPL Joint Colloquium, Univ. Arizona, Tucson, July 2010, Colloquium

*Cool Atmospheres of Hot Planets*

Hot Science Talks, STScI, Baltimore, July 2010, Contributed

*Cool Atmospheres of Hot Planets*

Hakone Workshop, Japan, May 2010, Invited Review

*Astronomical Observations of Mixing in Evolving Disks*

- Japan Geoscience Union Meeting, May 2010, Invited Review  
*Radial and Vertical Mixing in Protoplanetary Disks: Astronomical Constraints*
- Astrobiology Science Conference, Texas, April 2010, Talk  
*Different Initial Conditions for Planet Formation around Cool and Sun-like Stars*
- Department of Astronomy, Columbia University, Apr 2010, Colloquium  
*The Formation of Planets around the Sun and Other Stars*
- Department of Physics and Astronomy, Johns Hopkins Univ., March 2010, seminar  
*Hot Exoplanets: Eclipse Photometry and Direct Imaging*
- Astrobio2010, Santiago de Chile, Jan 2010, Invited Talk  
*The Formation of Habitable Planetary Systems*
- Exoplanet Club, NASA Goddard Space Flight Center, Nov 2009, Seminar  
*Gas Giants beyond the Solar System: Direct Imaging and Eclipse Studies*
- Space Telescope Summer Student Program, Aug 2009, Invited Lecture  
*The Formation of Stars and Planets: Clues from Astronomy and Meteoritics*
- Meteoritical Society Workshop, Nancy, France, July 2009, contributed talk  
*Disks around Cool Stars and Sun-like Stars: Differences in Organic Chemistry*
- Meteoritical Society Meeting, Nancy, France, July 2009, invited talk  
*The Evolution of Protoplanetary Dust - The Astrophysical Perspective*
- Institute of Astronomy, Cambridge University, UK, June 2009  
*Mini Planetary Systems in the Making: Disks around the Coolest Stars and Brown Dwarfs*
- Department of Physics, Oxford University, UK, June 2009  
*Gas Giants Beyond the Solar System: Characterization of Hot Exoplanets*
- Imperial College, London, UK, June 2009, Seminar  
*Mini Planetary Systems in the Making: Disks around the Coolest Stars and Brown Dwarfs*
- Department of Physics and Astronomy, Johns Hopkins University, April 2009, seminar  
*Thermal Infrared Imaging of Exoplanets*
- Disks & Exoplanets, Hawaii, Mar 2009, invited talk  
*High-Contrast Imaging at Long Wavelengths: Surveys for Exoplanets*
- ESO Headquarters Santiago de Chile, Star-formation Seminar, Feb 2009  
*The Properties of Protoplanetary Disks as a Function of Stellar Parameters*
- Solar-Extrasolar Meeting, NASA Ames Research Center, Feb 2009  
*Thermal Processing of Planetary Material around Young Stars and the Sun*
- Space Telescope Science Institute, Sep 2008, Research Seminar  
*Thermal Processing of Pre-planetary Materials*
- Future of Ground-based Solar System Research, Elba, Sep 2008, Invited Review  
*Origins of Solar Systems: Planet formation around the Sun and Other Stars*

**Recent Grants and Contracts****2013**Patchy Clouds and Rotation Periods in Exoplanets (12 orbits)

Space Telescope Science Institute / HST Data Analysis

PI: D. Apai

Amount: \$220,000 (program selected, budget pending)

Evolution of Heterogeneous Cloud Structure through the T Dwarf Sequence

Space Telescope Science Institute / HST Data Analysis

PI: E. Buzzi (postdoc advised by Apai)

Admin PI: Apai

Amount: \$180,000 (program selected, budget pending)

**2012**Extrasolar Storms: The Physics and Chemistry of Evolving Cloud Structures in Brown Dwarf Atmospheres (1,144 hours)

Spitzer Exploration Science Program

Jet Propulsion Laboratory / Spitzer Data Analysis

PI: Apai

Amount: \$595,005

Extrasolar Storms: The Physics and Chemistry of Evolving Cloud Structures in Brown Dwarf Atmospheres (14 orbits)

Spitzer Exploration Science Program - Coordinated HST observations

Space Telescope Science Institute / HST Data Analysis

PI: Apai

Amount: \$159,392

Earths in Other Solar Systems: The Delivery of Volatiles and Organics to Habitable Planets [Not Selected]

NASA Astrobiology Institute

PI: Apai

Amount: \$6.9M (Not Selected)

**2011**Weather on Other Worlds: A Spitzer Exploratory Science Program (840 hours)

PI: Metchev

Apai: Science Co-PI and lead of observations

Amount: \$167,000

Physics and Chemistry of Condensate Clouds across the L/T Transition - A SNAP Spectral Mapping Survey (60 orbits)

Space Telescope Science Institute / HST Data Analysis

PI: D. Apai

Amount: \$144,000

Imaging Disk-Planet Interactions in the Beta Pictoris Disk

Space Telescope Science Institute / HST Data Analysis

PI: D. Apai

Amount: \$44,000

**2010**

Herschel Space Observatory Studies of Debris Disks

Jet Propulsion Laboratory / Herschel Data Analysis

PI: P. Abraham

US CoPIs: D. Apai, I. Pascucci, C. Grady

Amount: \$15,000

Mapping Brown Dwarfs: The Evolution of Cloud Properties Through the L-T Transition

Jet Propulsion Laboratory / Spitzer Data Analysis

PI: D. Apai

Amount: \$5,000

Mapping Brown Dwarfs: The Evolution of Cloud Properties Through the L-T Transition

Space Telescope Science Institute / HST Data Analysis

PI: D. Apai

Amount: \$105,000

MEPHISTO: Mapping the Exoplanets Population with High-Contrast Observations

NASA Origins of Solar Systems Program

PI: D. Apai

Amount: \$179,000

The Delivery of Volatiles to Forming Planets: From Earth to Exo-Earths with JWST

Space Telescope Science Institute Workshop Funds

PI: D. Apai

Amount: \$12,000

Mapping Exoplanets with JWST

Space Telescope Science Institute's Director's Discretionary Funds

PI: D. Apai

Amount: \$46,000

**2009**

A JHU-STScI Astrobiology Seminar Series

Space Telescope Science Institute's Director's Discretionary Funds

PI: D. Apai

Amount: \$10,000

Physical Properties of Hot Jupiters from Ground-based Eclipse Photometry

NSF Stellar Astronomy & Astrophysics Program

Co-PIs: M. Lopez-Morales and D. Apai

Amount: \$319,000

An Imaging Survey of Protoplanetary Disks and Brown Dwarfs in the Chamaeleon I region

Space Telescope Science Institute / HST Data Analysis

PI: M. Robberto

Amount: \$280,564

**2008**

Hot Jupiters in the Near-Infrared: Pioneering Secondary Eclipse Photometry at Short Wavelengths

Space Telescope Science Institute's Director's Discretionary Funds

PI: Apai

Amount: \$44,268

Dust in Debris Disks

Jet Propulsion Laboratory / Spitzer Data Reduction and Analysis

PI: A. Kóspál

Amount: \$61,953