Daniel Tamayo

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Education

2008-2014	Ph.D.
Cornell University	Minor Concentration: Physics
Ithaca, NY, USA	G.P.A. 4.0
Advisor	Joseph A. Burns
Minor Advisors	Philip D. Nicholson
	James P. Lloyd
	Yuval Grossman
2005	B.S. Physics
University of Michigan	B.S. Mathematical Physics
Ann Arbor, MI, USA	B.S. Philosophy

Fellowships and Awards

Centre for Planetary Sciences Fellow, University of Toronto	2014-Present
Buttrick-Crippen Fellowship, Cornell Knight Institute	2013-2014
One of two awarded across Cornell depts to teach a proposed first-year writing seminar	
Z. Carter Patten Graduate Fellowship in Astronomy	2013
NASA Space Grant Fellowship	2013
Outstanding Teaching Assistant Award, Cornell University Dept of Astronomy	2010
One awarded yearly	
AAS Division of Dynamical Astronomy Student Stipend Award	2010
Cornell University First Year Fellowship	2008-2009

Grants Awarded

Science PI, Galactic Background Calibrations for OT1_ddan01_1 ($20,300)	2011
Herschel Space Observatory Open Time Proposals Rd 2 *(Obs. not executed)*	
Science PI, Detecting the Largest Rings in the Solar System—	2010
Dust Rings from the Irregular Satellites ($60,200)	
Herschel Space Observatory Open Time Proposals Rd 1	
Graduate Student Conference Grant, *Cornell University Graduate School*	2009-2013

Refereed Publications

5 | **D. Tamayo**, M. M. Hedman, J.A. Burns 2014
First Observations of the Phoebe Ring in Optical Light
Icarus, Volume 233, p. 1-8
doi:10.1016/j.icarus.2014.01.021

4 | **D. Tamayo** 2014
Consequences of an Eccentric Orbit for Fomalhaut b
MNRAS, Volume 438, Issue 4, p. 3577-3586
doi:10.1093/mnras/stt2473

3 | **D. Tamayo**, J.A. Burns, D.P. Hamilton 2013
Chaotic Dust Dynamics and Implications for the
Hemispherical Color Asymmetries of the Uranian Satellites
Icarus, Volume 226, Issue 1, p. 655-662
doi:10.1016/j.icarus.2013.06.018

2 | **D. Tamayo**, J.A. Burns, D.P. Hamilton, P.D. Nicholson 2013
Dynamical Instabilities in High-Obliquity Systems
Astronomical Journal, Volume 145, Issue 3, article id. 54, 12 pp.
doi:10.1088/0004-6256/145/3/54

1 | **D. Tamayo**, J.A. Burns, D.P. Hamilton, M.M. Hedman. 2011
Finding the Trigger to Iapetus' Odd Global Albedo Pattern:
Dynamics of Dust from Saturn's Irregular Satellites
Icarus, Volume 215, Issue 1, p. 260-278
doi:10.1016/j.icarus.2011.06.027

Invited Talks

Southwest Research Institute, Boulder, CO Jan 2014
Dynamics and Consequences of Circumplanetary Debris Disks Around the Giant Planets

Harvard-Smithsonian Center for Astrophysics, Cambridge, MA Nov 2013
A Dynamical Instability for Satellites around High-Obliquity Planets

Canadian Institute for Theoretical Astrophysics, Toronto, ON Oct 2013
Dynamics and Consequences of Circumplanetary Debris Disks Around the Giant Planets

American Museum of Natural History, New York, NY May 2013
A Tale of Two Debris Disks: Chaos around Uranus & Is Fomalhaut b a Planet?

Berkeley Theoretical Astrophysics Center, Berkeley, CA Dec 2012
Dynamics and Consequences of Circumplanetary Debris Disks Around the Giant Planets

Rochester Institute of Technology, Rochester, NY Mar 2012
Painting the Giant Planets' Regular Satellites

Teaching

Cornell Astronomy Dept. Ithaca, NY	Designed and Taught First-Year Writing Seminar: *Are We Alone in the Universe?* (Buttrick-Crippen Fellowship)	2014
	Teaching Assistant, ASTRO 1102, *Our Solar System*	2011
	Designed and Taught 5-week middle-school science course: *Figuring Out Our Place in the Universe!*	2011
	Head Teaching Assistant, ASTRO 1101, *Nature of the Universe*	2010
	Teaching Assistant, ASTRO 1102, *Our Solar System*	2010
	Designed and Taught 5-week middle-school science course: *Mind-Blowing Science–From Relativity to Alien Biology*	2009
	Teaching Assistant, ASTRO 2201, *The History of the Universe*	2009
Peace Corps Otjimbingwe Namibia	Mathematics Teacher (Grades 8-10) Physical Science Teacher (Grades 8-9) Founded Computer Lab & Chess Club Renovated School Library	2005-2007
Princeton Review Ann Arbor, MI	Math, Science, Reading and English Teacher for ACT Test	2003-2005

Teaching Training

Writing 7100: Teaching Writing, *Cornell University*	2013
ALS 6015: Teaching in Higher Education, *Cornell University*	2012
Center for Astronomy Education Teaching Excellence Workshop, *PSU, PA*	2011
Writing 7101: Writing in the Majors, *Cornell University*	2009

Teaching and Mentoring

Graduate Students		
Ryan Cloutier	Retention of satellites during close planetary encounters	Fall 2014-pres.
Undergraduate Students		
Stephen Markham	Extracting the Phoebe ring's radial structure using Cassini data	Fall 2013-pres.
Heming Ge	Developing software for visualizing dynamical simulations	Summer 2013
High School Students		
	Mentored 6 rural students to regional science fair (Namibia)	2007

Academic Service

NASA Proposal Review Panelist	2014
Executive Secretary, *NASA Proposal Review Panel*	2013
Manuscript Referee, *Astrophysical Journal, Icarus, MNRAS*	2012-pres.
Student Representative for Faculty Search, *Cornell University*	2011
President, Astronomy Grads Network, *Cornell University*	2010-2012

Outreach

Organized Astro Career Day (2-day event for 80 local middle-school students) 2014
Cornell Department of Astronomy, Ithaca NY
Organized Museum in the Dark (Astronomy Halloween Event $\sim$ 100 children) 2011
Museum of the Earth, Ithaca, NY
Co-Started Ask An Astronomer At Cornell Podcast 2011-2014
Cornell Department of Astronomy, Ithaca NY
Participated on panel Ask an Astronomer Live! 2011
Delilah's Restaurant and Bar, Ithaca, NY
Wrote Iapetus: Saturn's Mysterious Two-Faced Moon 2011
Orion, Cornell Friends of Astronomy Newsletter
Taught Figuring out our Place in the Universe!, (5-week course) 2011
Russell I. Doig Middle School, Trumansburg, NY
Organized a book drive to send astronomy materials to a planetarium in Ghana 2010
Gathered and shipped over 100 textbooks
Taught Mind-blowing Science—from Relativity to Alien Biology 2009
Cascadilla High School, Ithaca, NY (5-week course)
Co-Organized Observe the Moon Night ($>$ 300 children and families) 2009
Fuertes Observatory, Ithaca, NY
Fielded weekly questions Curious about Astronomy? ($\sim 3 \times 10^6$ viewers / yr) 2008-2014
Cornell Department of Astronomy, Ithaca NY
Led or Co-Led $\sim$ 10 Workshops for Department-Hosted Outreach Events 2008-2014
Cornell Department of Astronomy, Ithaca NY

Languages

Fluent:	English, Spanish
Proficient:	French
Some:	German, Afrikaans, Khoekhoegowab (Namibian clicking language!)
Programming:	C++, C, Python, IDL, Mathematica, Qt, bash, OpenGL

References

Prof. Joseph A. Burns	joseph.burns@cornell.edu
Prof. Philip D. Nicholson	nicholso@astro.cornell.edu
Prof. Douglas P. Hamilton	dphamil@astro.umd.edu