

**Biographical Sketch of Mark J. Devlin**  
**April 2018**

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**Research Interests:** Experimental Cosmology, Millimeter and Sub-millimeter Instrumentation

**Professional Preparation:**

1988	B.S.	Physics/Math	University of Wisconsin
1993	M.A.	Physics	University of California at Berkeley
1993	Ph.D.	Physics	University of California at Berkeley

**Professional Appointments:**

2006-	Reese W. Flower Professor of Astronomy and Astrophysics, University of Pennsylvania
2003-2006	Class of 1965 Term Chair, University of Pennsylvania
2000-2003	Associate Professor, University of Pennsylvania
1996-2000	Assistant Professor, University of Pennsylvania
1995-1996	Research Associate, Princeton University
1994-1995	Postdoctoral Researcher, Princeton University
1993-1994	Postdoctoral Researcher, University of California at Berkeley

**Honors and Awards:**

2015	University of Pennsylvania School of Arts and Sciences Ira H. Abrams Memorial Award for Distinguished Teaching
2015	University of Wisconsin Physics Department Distinguished Alumni Award
2011	American Physical Society Fellow
2010	University of Pennsylvania School of Arts and Sciences Dean's award for Undergraduate Research Mentoring
2008	Kavli Fellow, NAS
2000	Alfred P. Sloan Fellow
1998-2003	NSF Career Award

**Experience:**

2016 -	Spokesperson for the Simons Observatory
2005 -	PI of the MUSTANG project (90 GHz camera for the Green Bank Telescope)
2003 -	Co-I of the Atacama Cosmology Telescope (co-Director starting 2014)
2001 -	PI of the Balloon-borne Large Aperture Telescope - BLAST

**Publication Record (Google Scholar):** 12,000+ citations, h-index of 62, and  $\int_{10}$ -index of 170. Since 2013, 6500+ citations, h-index of 44, and  $\int_{10}$ -index of 121.

### **External Service:**

2016-2017 NASA Mission of Opportunity Review  
2016- NSF/DOE Concept Definition Team for CMB-S4  
2016 NASA Astrophysics Subcommittee  
2015 NASA Mid-scale Satellite Selection Committee  
2014 NSF AAG Review Committee  
2014 NSF Postdoctoral Fellowship Selection Committee  
2012 SOFIA New Instrument Selection - NASA  
2011-2014 NRAO Users Committee  
2010 SOFIA Instrument Review Panel - NASA  
2008-2010 Astronomy Decadal Program Prioritization Panel - EOS, NAS  
2006-2007 Beyond Einstein Program Assessment Committee, NAS  
2006 Caltech/Cornell Telescope review panel  
2005-2006 Joint NSF/DOE/NASA CMB Taskforce, 2004-2005  
2003-2007 Balloon Roadmapping Team, NASA  
2003- Balloon Working Group, NASA  
2004 SAGENAP, DOE  
2004 Vision Missions Review Panel, NASA  
2001-2004 Astronomy and Physics Working Group, NASA  
2003-2004 NASA Advanced Detectors Review Panel  
2000 NASA ROSS detector Review Panel  
2000 AURA US-Gemini Fellowship Review Panel  
1999 NSF CAREER Review Panel

### **University, School, and Department Service:**

2017 Astronomy Faculty Search Committee  
2016- Junior Faculty Mentor - Christopher Mauget  
2014- Junior Faculty Mentor - Cullen Blake  
2011-2016 Junior Faculty Mentor - James Aguirre  
1997- Head of Physical Sciences Machine Shop  
2014-2016 Departmental Planning Committee  
2006-2009 SAS Planning Committee  
1997-2009 Astronomy Search Committee  
2000-2005 Physics Department Planning Committee  
2000 Teaching Committee  
1998-2002 Graduate Admissions  
2000 Condensed Matter Search  
1991-2001 Committee for Undergraduate Education

### **Selected Presentations:**

2017 Cosmic Microwave Background, Colloquium, Rochester  
2017 Cosmic Microwave Background, Colloquium, Carnegie Mellon  
2017 Cosmic Microwave Background, Colloquium, JHU/STSCI  
2017 Cosmic Microwave Background, DPF Plenary Talk, Fermilab  
2017 MUSTANG, Seminar, Cornell University  
2016 Public Astronomy, Franklin Institute, Philadelphia, PA  
2016 BLAST, Colloquium, Yale, New Haven, CT  
2016 MUSTANG, Colloquium, NRAO, Socorro, NM

2016 BLAST, Colloquium, West Chester University  
2016 BLAST, Colloquium, Drexel University  
2015 Ground Based CMB in the US, Florence, Italy  
2015 BLAST, Colloquium, Brookhaven National Lab  
2015 BLAST, Colloquium, University of Wisconsin - Madison  
2015 BLAST, Colloquium, University of California - San Diego  
2014 AdvACT, Invited Talk, Planck2014, Ferrara, Italy  
2014 MUSTANG, Seminar, McGill University  
2014 MUSTANG, Seminar, Cardiff University, Wales  
2014 MUSTANG, Seminar, IAS, Princeton, NJ  
2014 MUSTANG, Colloquium, NRAO, Green Bank, WV  
2013 BLAST, Downingtown, PA STEM Academy  
2013 BLAST, Colloquium, Arizona State University  
2013 BLAST, Chester County Astronomical Society  
2013 ACT, Invited Talk, CMB2013, Okinawa, Japan  
2013 ACT, Invited Talk, AAAS Meeting, Boston, MA  
2013 BLAST, Penn Academy, Palm Beach, FL  
2012 MUSTANG, UC Berkeley Seminar  
2012 BLAST, SOFIA Science Center Colloquium, NASA Ames Research Center  
2011 BLAST, University of Michigan Seminar, Anne Arbor, MI  
2011 BLAST, NRAO Single Dish Summer School Closing Talk, Greenbank, WV  
2011 MUSTANG, SZ Meeting, Santandor, Spain  
2011 BLAST, Southeastern Planetarium Association, Georgia  
2011 BLAST - Foregrounds, Planck Workshop, Princeton, NJ  
2011 BLAST - Public Lecture, Delaware Valley Amature Astronomers Club  
2010 BLAST - Public Lecture, McMurdo Station, Antarctica  
2010 SAS Graduate Commencement Speech, Philadelphia, PA  
2010 BLAST - Public Lecture with movie, Northeast Astronomy Forum and Telescope Show, Suffern, NY  
2010 BLAST - Public Question and Answer with movie, Lambertville, NJ  
2010 Public Lecture on Cosmology, Penn Club, NYC  
2010 First Results from BLAST, colloquium, Rowan College, NJ  
2010 First Results from BLAST, colloquium, Vanderbilt  
2010 First Results from BLAST, colloquium, Rutgers University  
2010 BLAST - Public Lecture with movie, Fermilab  
2010 First Results from BLAST, seminar, Fermilab  
2010 First Results from BLAST, seminar, Michigan State University, East Lansing, MI  
2009 BLAST - Public Lecture with movie, Ohio State  
2009 BLAST - Public Lecture with movie, Coca-Cola Space Science Center, Columbus, GA  
2009 BLAST - Public Lecture with movie, East Tennessee State University, Johnson City, TN  
2009 High Altitude Ballooning, invited talk, Bridging the Gap to Space, Boulder, CO  
2009 First Results from BLAST, colloquium, MIT - Astronomy  
2009 BLAST on the Colbert Report, NY, NY  
2009 First Results from BLAST, colloquium, Haverford College, PA  
2009 BLAST - Public Lecture with movie, Columbia University, NY, NY  
2009 High Altitude Ballooning, invited talk, American Institute of Aeronautics and Astronautics, Seattle, WA  
2009 First Results from BLAST, invited talk, Far-IR/Submm Innovative Approaches Workshop, Caltech  
2009 First Results from BLAST, colloquium, NASA Goddard Space Flight Center

- 2009 First Results from BLAST, colloquium, Princeton University - Astronomy
- 2008 First Results from BLAST, colloquium, Northwestern University
- 2008 ACT, colloquium, Cardiff University, Cardiff, Wales
- 2008 First Results from BLAST, seminar, National Institute of Standards, Boulder, CO
- 2008 BLAST and ACT, two invited lectures, Summer School on the CMB and Large Scale Structure, IUCAA, Pune, India
- 2008 First Results from BLAST, The Future of Far-IR/Submillimeter Astrophysics, Pasadena, CA
- 2008 BLAST, Public Lecture, Sunday Evening Seminar, Wilmington, DE
- 2008 BLAST!, Public Lecture at the Vail Symposium, Vail, Co
- 2007 BLAST and ACT, seminar, Penn State
- 2007 BLAST, seminar, NASA Headquarters
- 2006 BLAST , public lecture, McMurdo Station, Antarctica Science Wednesday
- 2006 ACT, invited talk, Fundamental Physics With Cosmic Microwave Background Radiation - UC Irvine
- 2005 ACT and BLAST, seminar, Washington University, St. Louis
- 2005 Cosmology at Penn, public talk, Penn Science Cafe
- 2005 Cosmolgy at Penn, keynote speaker, Starfest 2005
- 2005 BLAST, seminar, Swedish Space Corporation, Kiruna, Sweden
- 2004 ACT and BLAST, colloquium, NIST, Boulder, CO
- 2004 BLAST, invited talk, SPIE - Astronomical Telescopes and Instrumentation, Glasgow, Scotland
- 2004 ACT and BLAST, colloquium, University of Wisconsin
- 2004 ACT and BLAST, colloquium, Columbia University

**Ph.D. Students:**

- |         |  |
|---------|--|
| Current | Nathan Lourie, Ian Lowe, Jack Orlowski, Sara Stanchfield, Jon Ward, Ningfeng Zhu |
| 2018    | Benjamin Schmitt, ACT (Anticipated)  |
| 2017    | Marius Lungu, ACT  |
| 2016    | Brad Dober, BLAST  |
| 2016    | Nick Galitzki, BLAST   |
| 2014    | Alex Young, MUSTANG  |
| 2013    | Elio Angile, The BLAST Experiment  |
| 2011    | Phil Korngut, SZ Observations with MUSTANG                                       |
| 2011    | Danica Marsden, The ACT Experiment   |
| 2007    | Marie Rex, The BLAST Experiment  |
| 2009    | Dan Swetz, The ACT Experiment  |
| 2009    | Chris Semisch, The BLAST Experiment  |

**Postdocs:**

- |           |  |
|-----------|--|
| 2018-     | Gabriele Coppi, Ph.D., Manchester University   |
| 2018-     | Javier Romualdez, Ph.D., University of Toronto |
| 2018-     | Charles Romero, Ph.D., University of Virginia  |
| 2017-     | Zhilei Xu, Ph.D., JHU                          |
| 2015-2016 | Seth Hillbrand, Ph.D., Columbia University     |
| 2014-     | Federico Nati, Ph.D., University of Rome       |
| 2013-2017 | Elio Angile, Ph.D., University of Pennsylvania |

2009-2013 Erik Reese, Ph.D., University of Chicago  
 2009-2011 Kim Scott, Ph.D., University of Massachusetts  
 2008-2010 Marcos Lima, Ph.D., University of Chicago  
 2008-2011 Tony Mroczkowski, Ph.D., Columbia University  
 2008-2009 Fritz Stabenau, Ph.D., University of Pennsylvania  
 2007-2011 Matthew Truch, Ph.D., Brown University  
 2007-2009 Marie Rex; Ph.D., University of Pennsylvania  
 2005-2008 Robert Thornton, Ph.D., University of Hawaii  
 1999-2004 Simon Dicker, Ph.D., Cambridge University  
 1997-1999 Jason Puchalla, Ph.D. University of Chicago

**Grant History:**

2018- 2021 **Balloon-borne Large Aperture Telescope - BLAST**, \$2.7M  
 NASA, Principal Investigator, Mark Devlin

2016-2019 **Observations with the MUSTANG Receiver on the GBT**, \$555K  
 NSF, Principal Investigator, Mark Devlin

2016-2021 **The Simons Observatory**, \$63M  
 Simons Foundation, Spokesperson, Mark Devlin

2014-2019 **Advanced ACTPol**, \$2M  
 NSF (through Princeton University), Principal Investigator, Mark Devlin

2014-2017 **Observations with the MUSTANG Receiver on the GBT**, \$506K  
 NSF, Principal Investigator, Mark Devlin

2013- 2018 **Balloon-borne Large Aperture Telescope - BLAST**, \$4.6M  
 NASA, Principal Investigator, Mark Devlin

2013 **The MUSTANG1.5 Receiver for the GBT**, \$83K  
 Mt. Cuba Astronomical Society, Principal Investigator, Mark Devlin

2010-2015 **ACTPol**, \$3M  
 NSF (through Princeton University), Principal Investigator, Mark Devlin

2010-2013 **Observations with the MUSTANG Receiver on the Green Bank Telescope**, \$530K  
 NSF, Principal Investigator, Mark Devlin

2009-2013 **Balloon-borne Large Aperture Telescope - BLAST**, \$2.2M  
 NASA, Principal Investigator, Mark Devlin

2008-2011 **Spitzer South Ecliptic Pole Survey**, \$364K  
 NASA, Principal Investigator, Mark Devlin

2006-2009 **Balloon-borne Large Aperture Telescope - BLAST**, \$1.8M  
 NASA, Principal Investigator, Mark Devlin

2005 **Penn Research Foundation**, \$35K

2005-2008 **Penn Array Receiver on the GBT**, \$360K  
 NSF, Principal Investigator, Mark Devlin

2004-2010 **Atacama Cosmology Telescope - ACT**, \$3.1M  
 National Science Foundation (administered through Princeton University)  
 Principal Investigator: Mark Devlin

2002-2007 **Penn Array for the Green Bank Telescope**, \$704K  
 National Radio Astronomy Observatory, Principal Investigator, Mark Devlin

2004-2007 **PAPPA - Balloon Polarization Experiment**, 2004-2007, \$438K (to Penn)  
 NASA, Principal Investigator, Al Kogut (GSFC)

2003-2006 **Balloon-borne Large Aperture Telescope - BLAST**, 2003-2006, \$954K  
 NASA, Principal Investigator, Mark Devlin

2000-2003 **Balloon-borne Large Aperture Telescope - BLAST**, 2000-2003, \$950K  
NASA, Principal Investigator, Mark Devlin  
2000 **Penn Research Foundation**, \$35K  
1998-2003 **Research Experience for Undergraduates**, \$75K  
NSF, Principal Investigator, Mark Devlin  
1998-2003 **Mobile Anisotropy Telescope - MAT**, 1998-2003, \$490K  
NSF, Principal Investigator, Mark Devlin

**Telescope time:**

2018 GBT, NRAO, 150+ hours  
2017 GBT, NRAO, 150+ hours  
2014 GBT, NRAO, 150+ hours  
2013 GBT, NRAO, 150+ hours  
2012 GBT, NRAO, 150+ hours  
2011 GBT, NRAO, 300+ hours.  
2010 GBT, NRAO, 150+ hours.  
2009 GBT, NRAO, 100+ hours.  
2008 GBT, NRAO, 70 hours.  
2008 Spitzer satellite, 91 hours.  
2008 GBT, NRAO, 60 hours.  
2007 GBT, NRAO, 36 hours.  
2006 GBT, NRAO, 36 hours.