

Matthew B. Bayliss, Ph.D.

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Research Expertise: Gravitational Lensing; Observational Cosmology; Giant Arc Statistics; Spectroscopy; Galaxy Cluster Astrophysics; Star Formation, Massive Stars and the ISM at High Redshift

EDUCATION

Ph.D. – 2011 – The University of Chicago – Astronomy & Astrophysics (advisor: Michael Gladders)
M.Sc. – 2007 – The University of Chicago – Astronomy & Astrophysics
B.Sc. – 2003 – The University of North Carolina at Chapel Hill – Physics (minor in Mathematics)

PROFESSIONAL EXPERIENCE

2015-present – Faculty Fellow in the Department of Physics & Astronomy at Colby College

2011-2015 – Postdoctoral Research Scholar w/ Professor Chris Stubbs – Department of Physics at Harvard University and the Harvard-Smithsonian Center for Astrophysics

2010-2011 – Illinois Space Grant Graduate Research Fellow – Kavli Institute for Cosmological Physics and the Department of Astronomy & Astrophysics at the University of Chicago

2005-2010 – Research Assistant – Kavli Institute for Cosmological Physics and the Department of Astronomy & Astrophysics at the University of Chicago

2004-2005 – Visiting Scholar w/ Daniel Reichart & Lab Assistant w/ Christopher Clemens – Department of Physics & Astronomy at the University of North Carolina at Chapel Hill

GRANTS AND AWARDS

As Principal Investigator

HST GO Program 13639 15 Orbits + \$85k in grant support – (Cycle 22)
16 Classical Observing Programs (46 nights) on 4m+ Telescopes (2008-2015)
Herschel/PACS Photometry DDT Observations (2012)
Graduate Fellowship, Illinois Space Grant Consortium (2010-2011)
Grant-in-Aid of Research, Sigma Xi Scientific Research Society (2008)
Undergraduate Research Fellowship, UNC Chapel Hill (2003)
Frances L. Phillips Scholarship, UNC Chapel Hill (2003)
Bridging Scholarship, UNC Chapel Hill (2002)

As Co-Investigator

HST GO Programs 14230, 14170, 13437 & 13337 (C21), 12726 (C20), and 12267 (C18)
HST Frontier Fields Modeling Grant NAS5-26555
HST Large GO Program 13003 (Cycle 20)
Spitzer Space Telescope GO Programs 70154 (C7) and 60158 (C6)

RESEARCH ADVISING/MENTORING EXPERIENCE

Peter Blanchard – SAO REU student (Summer 2012), now PhD student at Harvard
Jocelyn Ferrara – SAO REU student (Summer 2013), now *HST* Science Ops Analyst at STScI
Jonathan Ruel – PhD student at Harvard (2013 Grad), now college physics instructor in Montreal

TEACHING/OUTREACH EXPERIENCE

Primary Instructor	Colby College	Spring 2016
Primary Instructor	Colby College	Fall 2015
Postdoc Rep	Harvard Physics Undergraduate Curriculum Review Committee	2013-14
Invited Speaker	Keene, NH Public Library Astronomy Lecture Series	2014
Invited Speaker	Harvard/CfA Observatory Nights Public Talk Series	2013
REU Advisor	SAO REU Summer Research Program	2012,2013
Teaching Fellow	Harvard University – Science of the Physical Universe 30	2012
Guest Lecturer	Adler Planetarium/Chicago Public Schools STEM Program	2010
Instructor	Yerkes Summer/Winter Institute	2006-2010
Instructor	Space Explorers Saturday 6-12 Class	2006-2007
Teaching Assistant	The University of Chicago – PHYS 119 & 120, and NTSC 102	2005-2006
Teaching Assistant	The University of North Carolina at Chapel Hill – PHYS 25 & 28	2003

INVITED TALKS AND SEMINARS

Invited Colloquium	Department of Physics & Astronomy, UNC-Asheville	Mar 2015
Invited Colloquium	Department of Physics & Astronomy, Colby College	Feb 2015
Invited Talk	Harvard-Smithsonian CfA Postdoc Symposium	Nov 2014
Invited Seminar	Department of Astronomy, Yale University	Mar 2014
Invited Seminar	Dept. of Physics & Astronomy, Carnegie Mellon University	Nov 2013
Invited Colloquium	Department of Astronomy, Pontificia Universidad de Catolica	Oct 2013
Invited Colloquium	Department of Astronomy, University of Michigan	Sept 2013
Invited Talk	“Cluster Lensing: Past & Future” (STScI)	Apr 2013
Invited Seminar	ITC 2013A Seminar Series, “Galaxy Clusters”	Feb 2013
Invited Seminar	ITC 2012B Seminar Series, “The Nature of Dark Matter”	Oct 2012
Invited Talk	SnowPAC 2012, “Lensing in the Era of Survey Science”	Mar 2012
Invited Talk	Essential Cosmology for the Next Generation Workshop	Jan 2012
Invited Seminar	ITC Wednesday Forum	Oct 2011
Invited Seminar	Department of Physics & Astronomy, UNC – Chapel Hill	Mar 2011
Invited Seminar	Space Telescope Science Institute	Dec 2010
Invited Seminar	NASA Goddard Space Flight Center	Dec 2010
Invited Seminar	UC Santa Cruz Department of Astronomy	Oct 2010
Invited Colloquium	Cerro-Tololo Interamerican Observatory	Oct 2008

PROFESSIONAL SERVICE AND AFFILIATIONS

U.S. Representative on the Gemini Users Committee 2015-
 NASA *Hubble Space Telescope* Cycle 23 Time Allocation Committee Panel Member (Galaxies 1)
 NASA Fellowship Review Service – 2014-15
 NSF Astronomy Division Grant Review Panels (Cosmology) – 2012, 2014
 Referee: *The Astrophysical Journal*; *The Astrophysical Journal Letters*; *The Astronomical Journal*
 American Astronomical Society & American Astronomical Society Chambliss Award Judge
 Student Rep to the Graduate Admission Committee, University of Chicago A&A Dept, 2011
 Student Rep to the Brinson Lectureship Selection, University of Chicago A&A Dept, 2008-2011
 Student Rep to the Faculty, University of Chicago A&A Dept, 2005-2007
 Vice President of the Sigma Pi Sigma Physics Honor Society, UNC Chapel Hill, 2002-2003

OBSERVING EXPERIENCE (Extensive w/ optical & IR imaging and spectroscopy)

Classical: 10m Keck-I (2 nights), 8.1m Gemini-South (11 nights), 8.1m Gemini-North (3 nights), 6.5m Magellan I & II (51 nights), 6.5m MMT Telescope (7 nights), 4.1m SOAR (9 nights), 3.5m WIYN (9 nights), 3.5m ARC Telescope (3 nights), 2.5m Nordic Optical Telescope (28 nights), Swope 1m (4 nights), Yerkes 1m Refractor

Queue/Remote: 8.1m Gemini-N/S (>270 hrs Bands 1&2), 3.5m ARC Telescope (~45 half-nights)