Curriculum Vitae

CONTACT INFORMATION RESEARCH INTERESTS	The University of Colorado 389 UCB Boulder, CO 80309-0389 Cell: 508-215-7762 Fax: 303-492-7178 E-mail: benjamin.oppenheimer@colorado.edu http://home.strw.leidenuniv.nl/~oppenheimer/IGM/research.html Galaxy Formation and Evolution, N-body+SPH Simulations, Intergalactic Medium, Chemical Enrichment, Quasar Absorption Line Spectroscopy, Extra-Galactic Observations, Atomic Physics, Active Galactic Nuclei, Scientific Visualization		
EDUCATION	University of Arizona 1999 - 2000, 2002 - 2008		
	Ph.D., Astronomy, August 2008 "The History of Enrichment of the Intergalactions" Supervisor: Romeel Davé	of Enrichment of the Intergalactic Medium Using Cosmological Simula-	
	M.S. Astronomy, March 2004 Supervisor: John Bieging		
	Harvard University	1995 - 1999	
	A.B., Astronomy & Physics, cum laude, June 1999		
FELLOWSHIPS	VENI Fellowship, Leiden University	2010 - 2013	
	Proposal: "Fourteen Billion Years of Baryonic Galaxy Formation" defended and awarded Aug. 2010 250,000 EUR support, supplanted NOVA Fellowship 25,000 EUR spent on computer hardware		
	NOVA Fellowship, Leiden University	2009 - 2010	
	Three years of funding at Leiden University. Faculty contact: Joop Schaye.		
RESEARCH APPOINTMENTS	Research Associate, CASA, The University	of Colorado 2013 - present	
	VENI Fellowship, Leiden University	2010 - 2013	
	NOVA Fellowship, Leiden University	2009 - 2010	
	Post-doctoral Research Associate, Universit	ty of Arizona 2008 - 2009	
	Graduate Research Assistant, University of	f Arizona 2002 - 2008	
	Research Experience for Undergraduates, Arecibo, Puerto Rico 1998		
	Research Assistant, Harvard-Smithsonian	Center for Astronomy 1996 - 1997	
	Research Assistant, American Association of Variable Star Observers 1993 - 1995		

EXTERNAL FUNDING AND AWARDS

- **PI** NASA Astrophysical Theory Program, 14-ATP14-0142, "Dynamical Chemical Evolution", \$388,655
- **PI**, HST Proposal ID 13262, Cycle 21, "Cosmic HI: a tracer of the physics regulating galaxy formation over a Hubble time", Archive Theory Proposal, \$138,398
- **PI**, HST Proposal ID 12841, Cycle 20, "The Sensitive Side of Galaxy Formation: How sub-L* Galaxies Accrete, Form Stars, and Enrich the IGM", Archive Theory Proposal, \$94,598
- **PI**, Old Observatory Workshop "Leiden Summer CGM-Galaxy Interface Workshop", 2000 EUR from NOVA
- **Co-PI** with R. Crain, Lorentz Center Workshop "The Dynamic Nature of Baryons in Halos", 10,000 EUR, plus 4,500 EUR from NOVA, and 1000 EUR each from SRON and ASTRON
- \sim 80,000 EUR research and travel budget in four years at Leiden as part of VENI and NOVA grants. Spent on computer hardware, travel, visitors, conference organizing, and public outreach.
- PI, 9 Leids Kerkhoven-Bosscha Fonds awards totaling 6885 EUR for travel while at Leiden
- Co-I, HST Proposal ID 13774, Cycle 22, "Feeding and feeback: The impact of AGN on the circumgalactic medium", 52 COS Orbits, \$113,460 personal funding
- Co-I, HST Proposal ID 12854, Cycle 20, "A COS Legacy Study of Circumgalactic Baryons", Archive Proposal, \$50,056 personal funding
- Co-I, HST Proposal ID 13444, Cycle 21, "Constraining the size of intergalactic clouds with QSO pairs", 21 COS Orbits, \$11,909 personal funding
- Co-I, HST Proposal ID 12860, Cycle 20, "Detecting Sources of Early IGM Enrichment", 15 WFC3 Orbits
- Co-I, HST Proposal ID 13033, Cycle 20, "COS-Halos: New FUV Measurements of Baryons and Metals in the Inner Circumgalactic Medium", 14 COS Orbits
- Co-I, HST Proposal ID 12643, Cycle 19, "Probing the Warm-Hot Intergalactic Medium using Weak, Distributed Metal Absorption", Archive Proposal
- Co-I, HST Proposal ID 12248, Cycle 18, "How Dwarf Galaxies Got That Way: Mapping Multiphase Gaseous Halos and Galactic Winds Below L*", 129 COS orbits
- Co-I, HST Proposal ID 12264 , Cycle 18, "The Relationship between Gas and Galaxies for 0 < z < 1.2", 66 COS orbits
- Co-I, HST Proposal ID 11598, Cycle 17, "How Galaxies Acquire their Gas: A Map of Multiphase Accretion and Feedback in Gaseous Galaxy Halos", 134 COS orbits
- Co-I, HST Proposal ID 11751, Cycle 17, "Simulations of COS intergalactic HI and metal absorbers", Archive Theory Proposal, \$88,900 total funding
- Co-I, National Center for Supercomputing Applications, "Hydrodynamic Simulations of Galaxy Formation including Cosmic-Scale Feedback", 420,000 CPU hours on the

TEACHING APPOINTMENTS	Co-Instructor, University of Colorado 2014		
	Designed and taught Astrophysics Graduate Seminar on Dark Matter (Astr6000) with Erica Ellingson.		
	Lecturer, Challenges in Modern Cosmology: Dark Matter and Dark Energy2014		
	Three lectures on dark matter simulations at the International Institute of Physics in Natal, Brazil in May, 2014.		
	Graduate Teaching Assistant, University of Arizona 1999 - 2000,2006		
	Led honors special project section in introductory astronomy class. Substitute lectured.		
Conference Organizing	SOC Member, "The Impact of Gas Fueling, Quenching, Feedback on the Growth of Galaxies" at Notre Dame, Jan. 2014		
	Creator and Organizer , "Leiden Summer CGM-Galaxy Interaction Workshop" at Leiden Old Observatory, June 2013		
	Co-creator and Organizer , "The Dynamic Nature of Baryons in Halos" Lorentz Center Workshop, Aug. 2012		
PROFESSIONAL SERVICE & OUTREACH	Referee: ApJ, ApJ Letters, MNRAS, Science		
	HST Cycle 22 Peer Review Panel, June 2014		
	NSF Allocation Panel P101895, Cosmological Simulations, June 2010		
	Founder of Old Observatory tours targeting underprivileged school children around Leiden, funded by 3000 EUR of my VENI grant, beginning early 2014		
	Public Lectures: Leiden University Discovery Talk, November, 2010; Arizona Astronomy Board, 2009		
Invited Conferences Talks	Intergalactic Interactions, Edinburgh, Scotland, Invited Talk, June 2013		
	May Symposium, Space Telescope Science Institute, Invited Talk, May 2012		
	The Cosmic Odyssey of Baryons Conference, Marseilles, Invited Review, June 2011		
	H-Metal Workshop, El Escorial, Spain, Invited Review, Sept. 2010		
	Cosmological Reionization Conference, Allahabad, India, Invited Talk, Feb. 2010		
	Missing Baryons, Accretion, & Feedback, Sydney, Australia, Invited Talk, Dec. 2009		
INVITED COLLOQUIA &	University of Denver, Denver, CO, Colloquium, Astronomy Colloquium, Mar. 2013		
	Columbia University, New York City, NY, Colloquium, Jan. 2013		

Columbia University, New York City, NY, Colloquium, Jan. 2013

New Mexico State University, Las Cruces, NM, Colloquium, Oct. 2012

Rutgers University, New Brunswick, NJ, Seminar, Jan. 2013

SEMINARS

University of California, Santa Barbara, CA, Astronomy Seminar, Jan. 2012

University of Massachusetts, Amherst, MA, Colloquium, Sept. 2011

Baryon Cycle, Irvine, CA, Talk, June 2012

Institute of Astrophysics, Cambridge, England, Colloquium, May 2011

Monash University, Melbourne, Australia, Colloquium, Apr. 2011

Swinburne University of Technology, Hawthorn, Australia, Colloquium, Mar. 2011

South Africa Astronomical Observatory, South Africa, Colloquium, Oct. 2010

Observatories of the Carnegie Institution, Pasadena, CA, Colloquium, June 2010

OTHER TALKS

2014 Ringberg Workshop on Galaxy Evolution, Ringberg, Germany, Talk, May 2014

Northwestern University, Evanston, IL, Theory Seminar, Oct. 2013

Max Planck Institute for Astronomy, Heidelberg, Germany, Galaxy Coffee, July 2013

Watching Galaxies Grow Up, Ringberg, Germany, Talk, Dec. 2011

University of Colorado, Boulder, CO, Astrophysics Lunch Seminar, Oct. 2011

University of California, Santa Cruz, CA, Flash Talk, Sept. 2011

Galaxy Formation, Durham, England, Talk, July 2011

National Optical Astronomical Observatory, Tucson, AZ, FLASH Talk, Jan. 2011

3rd Netherlands Galaxies and Cosmology Meeting, Groningen, Netherlands, Nov. 2010

Institute d'Astrophysique Paris, Coffee Talk, Apr. 2010

Chemical Enrichment of the IGM, Lorentz Center, The Netherlands, Talk, May 2009

Kavli Institute for Particle Astrophysics and Cosmology, Cosmology Seminar, Oct.

2008

Kavli Institute for Cosmological Physics, Weekly Seminar, Sept. 2008

Cosmic Odyssey of the Elements Conference, Aegina, Greece, Talk, June 2008

Chemodynamics: From First Stars to Local Galaxies, Lyon, France, Talk, July 2006

OTHER EXPERIENCE rfpMarket, Software developer, 2000-2001