

CURRICULUM VITAE

MARYAM MODJAZ

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EMPLOYMENT

After Sept. 2011 **New York University**
 Assistant Professor in Physics/CCPP

2010–2011 **Columbia University**
 Hubble Postdoctoral Fellow (100% independent research)

2007–2010 **University of California, Berkeley**
 Miller Postdoctoral Fellow (100% independent research)

EDUCATION

2001–2007 **Harvard University**
 Ph.D., Astronomy (**June 2007**)
 Ph.D. Thesis: *Varied Deaths of Massive Stars: Properties of Nearby
 Type IIb, Ib and Ic Supernovae*
 Advisor: Prof. Robert P. Kirshner
 A.M., Astronomy (2003)

1996–2000 **University of California, Berkeley**
 B.A., Astrophysics (2000) with High Honors
 Honors Thesis: *The Peculiar Type Ia Supernova 1998de in NGC 252*
 Advisor: Prof. Alexei V. Filippenko

HONORS, AWARDS, AND GRANTS

2010 German Astronomical Society: Ludwig-Biermann (early-career) Award
 (equivalent to AAS' Newton Lacy Pierce Prize)

2010 Postdoctoral Fellowships: Hubble, NOAO Leo Goldberg (declined), ESO (declined)

2007 Grand Poster Prize at IAU Symposium 250: "Massive Stars as Cosmic Engines"

2007 UC Berkeley: Miller Institute Research Fellowship

2007 Harvard University: Fireman Doctoral Dissertation Prize in Astronomy

2006– 2009 Conference Travel Grants by AAS, Harvard Graduate Council, *DFG* (German NSF)

2002, 2003, 2005 Harvard University: 3 Certificates of Distinction in Teaching

2002–2003 National Radio Astronomy Observatory: Student Grant

2000 UC Berkeley: Commencement Speech, Physics & Astronomy Department

2000 UC Berkeley: High Honors

2000 UC Berkeley: Dorothea Klumpke Roberts Prize for Outstanding Scholarly
 Achievement in Astronomy

1997–2000 Golden Key National Honor Society

1996 & 1999 UC Berkeley: Dean's Honor List

RESEARCH INTERESTS: Observations of Stripped-Envelope Core-Collapse Supernovae (SNe)
 SN – Gamma Ray Burst (GRB) Connection
 Environments & Host Galaxies of SNe and GRBs
 Innovative & Wide-Field Transient Surveys (Palomar Transient Factory)
 Stellar Forensics of SN with Shock Breakout

COMPETITIVELY OBTAINED OBSERVING TIME

As P.I.

2011 Gemini-N and Gemini-S Observatories, 8-m Telescopes (32 hrs)
 2008 Shane 3m-Telescope, Lick Observatory (2 nights)
 2006–2008 Gemini-N Observatory, 8-m Telescope (23 hrs)
 2007 Magellan Clay 6.5m-Telescope, LCO (1 night)
 2007 MMT 6.5m-Telescope, Mt. Hopkins (2 nights)
 2003 Greenbank 100m-Telescope (24 hrs)

As Co-I.

2011 HST Cycle 19 (15 orbits)
 2008–2010 Keck I Observatory, 10-m Telescope (**only other Co-I**, 5 nights)
 2006–2008 VLT Observatory, 8.2-m Telescope (25 hrs)
 2004–2007 Magellan Clay 6.5m-Telescope, LCO (7 nights)
 2004–2007 MMT 6.5m-Telescope, Mt. Hopkins (8 nights)
 2004–2007 PAIRITEL 1.3m NIR & FLWO 1.2m optical Telescopes
 2004–2007 FLWO 1.5-m Telescope
 2000–2001 Shane 3m-Telescope, Lick Observatory (5 nights)
 2001 Very Large Array (13 hrs)

PROFESSIONAL SERVICE & MEMBERSHIPS

2010–present Member of the Palomar Transient Factory (PTF)
 2010–present Member of the LSST SN Science Collaboration
 2009–present SOC Member for IAU Symposium 2012 "Death of Massive Stars: SNe and GRBs"
 2008–present Panel Member on Proposal Review and Telescope TAC (e.g., NSF, Hubble)
 2007–present Member of the Swift SN Team
 2007–present Referee for Scientific Journals (e.g., ApJ, MNRAS)
 2007–present Member of German Astronomical Society ("Astronomische Gesellschaft")
 2008–2010 Annual Miller Symposium Committee Member, UC Berkeley
 2007–2010 Postdoc Representative & Women in Astronomy Advocate, UC Berkeley Astronomy
 2001–present Member of American Astronomical Society (AAS)
 2003–2006 PhD Student Representative on Committee of Academic Studies, Harvard Astronomy

TEACHING, MENTORING & OUTREACH

2006–present	Co-Advisor to a number of graduate students on sub-aspects of their research, e.g., –Heng Hao at Harvard University (Hao et al. 2007)
2007–present	Public Talks (e.g., UC Berkeley, San Francisco Amateur Astronomy Society)
2009	Co-organizer for UCB Astronomy’s Outreach Activities for International Year of Astronomy (e.g., public talks attracting up to 200 people)
2008	Press Release, numerous newspaper and radio interviews (<i>NPR</i> , <i>Physics Today</i> , <i>California Magazine</i> , <i>Daily Cal</i>) on Shock-Breakout in SN 2008D
2007–2008	Mentor, UC Berkeley Society for Women in the Physical Sciences.
2002–2006	Mentor, Harvard College Science Mentors Program
2004, 2005	Lecturer & Session Leader, Harvard Teaching Fellows Conference, Bok Center for Teaching
2005B	Teaching Fellow, Harvard, Science A47 – ”Cosmic Connections”
2002A, 2003A	Teaching Fellow, Harvard, Science A35 – “Matter and the Universe”
2000B	Teaching Fellow, UC Berkeley AY10 – “General Astronomy”

SELECTED SCIENTIFIC TALKS**Invited Astronomy/Astrophysics Colloquia**

22. UT Austin, Texas, November 2011
21. Penn State, October 2011
20. Stanford University, June 2011
19. American Museum of Natural History, November 2010
18. Yale University, November 2010
17. NYU, April 2010 (Tenure-Track Faculty Job Talk)
16. STScI, March 2010 (Tenure-Track Astronomy Job Talk)
15. MIT, February 2010 (Tenure-Track Faculty Job Talk)
14. Chicago University, February 2010 (Tenure-Track Faculty Job Talk)
13. UC Berkeley, December 2009
12. Columbia University, November 2009
11. European Southern Observatory (ESO), Garching/Germany, September 2009
10. University of Toronto, November 2008
9. Carnegie Institute, October 2008
8. UC Irvine, October 2008
7. San Francisco State University, October 2008

6. Space Telescope Science Institute, April 2008
5. Heidelberg University, Germany, March 2008
4. University of Hawaii, IfA, Hawaii, February 2008
3. Sonoma State University, November 2007
2. Berkeley Space Sciences Lab, November 2007
1. “Varied Deaths of Massive Stars: Properties of Nearby SN I Ib, Ib and SN Ic”, PhD Colloquium, CfA, May 2007

Invited Talks

19. **Review Talk**, *Explosive Ideas about Massive Stars - from Observations to Modeling*, Workshop, Stockholm, August 10-13, 2011
18. Invited Conference Talk, *Supernovae and Their Host Galaxies*, Sydney, July 2011
17. Invited Solicited Talk, *GRBs as Probes: From the Progenitor’s Environments to the High-z Universe*, Como, Italy, May 2011
16. **Biermann Prize Talk**, Annual Meeting of the German Astronomical Society, Bonn, September 2010
15. **Review Talk**, *Bash Symposium*, U of Texas, Austin, October 2009
14. **Review Talk**, *Stellar Deaths and Supernovae*, KITP Santa Barbara, August 2009
13. **Review Talk**, 1st California Postdoc Symposium, UC Santa Cruz, August 2008
12. FLASH Seminar Talk, UC Santa Cruz, May 2008
11. Seminar Talk, Carnegie DTM, May 2008
10. Astrophysics and Relativity Seminar, NYU, April 2008
9. **Prize talk**, *IAU 250: Massive Stars as Cosmic Engines*, Hawaii, December 2007
8. Astrophysics Seminar, Basel University, August 2007
7. Research Forum, CfA, April 2007
6. ITC Talk, CfA, April 2007
5. Invited talk, *20 Years of SN1987A and GRBs*, Aspen, February 2007
4. MPA Seminar Talk, Max-Planck Institute for Astrophysics, Garching, Germany, December 2006
3. KIPAC Tea Talk, Standford/KIPAC SLAC, October 2006
2. Theoretical Astrophysics Center Talk, UC Berkeley, October 2006

1. Optical & IR Lunch Talk, Harvard-Smithsonian CfA, January 2001

Contributed Conference Talks

9. "Diagnostics for Stripped SN Progenitors: Directly Measured Metallicities at SN sites", IAP Workshop on *SN Environments and Progenitors*, Paris 2010
8. "Stellar Forensics with Stripped SN: Measured Metallicities at the Explosion Sites of SN Iib, Ib and Ic", AAS Meeting January 2010, DC
7. "The SN Ib/c Zoo and Their Habitats", *Fireworks 2009*, Workshop, Bonn, July 2009
6. "SN2008D/XRT080109: Death of a Stripped Massive Star", *Hot and Cool Stars*, Pasadena, November 2008
5. "Environments of SN with and without GRBs", *Probing Stellar Populations Out to the Distant Universe*, Cefalu, Italy, September 2008
4. "Diverse Deaths of Massive Stars: Properties of Nearby SN Iib, Ib, and Ic SN", American Astronomical Society Meeting, Seattle, January 2007
3. "CfA Optical Observations of Type Ib/c Supernovae", *Compact Objects and Their Explosive Origins*, Cefalu, Italy, June 2006
2. "Spectra of Type Ia, Ib/c Supernovae", American Astronomical Society Meeting, Minneapolis, June 2005
1. "Probing the Magnetic Field at Sub-Parsec Radii in the Accretion Disk of NGC 4258", *Growing Black Holes: Accretion in a Cosmological Context*, Garching, Germany, July 2004

PUBLICATIONS

As of June 2011: total of 39 refereed papers, 1560 citations (2084 for all), h-index: 25

First- and Second-Author Articles in Refereed Journals

441 citations as of June 2011

10. **M. Modjaz (2011)**, “Stellar Forensics with the Supernova-GRB Connection”, 2011, AN, 332, 434
9. **M. Modjaz et al. (2011)**, ”Progenitor Diagnostics for Stripped Core-Collapse Supernovae: Measured Metallicities at Explosion Sites”, 2011, ApJ, 731, L4
8. **M. Modjaz et al. (2009)**, “From Shock Breakout to Peak and Beyond: Extensive Panchromatic Observations of the Type Ib Supernova 2008D associated with Swift X-ray Transient 080109”, 2009, ApJ, 702, 226
7. **M. Modjaz et al. (2008b)**, “Double-peaked Oxygen Lines Are not Rare in Nebular Spectra of Core-Collapse Supernovae”, 2008, ApJL, 687, L9
6. **M. Modjaz**, R. P. Kirshner, S. Blondin, P. Challis, T. Matheson , “Measured Metallicities at the Sites of Local Broad-Lined Type Ic Supernovae and Implications for the SN-GRB Connection”, **2008a**, AJ, 135 1136
5. S. Immler, **M. Modjaz**, et al., “Swift and Chandra Detections of Supernova 2006jc: Evidence for Interaction of the Supernova Shock with a Circumstellar Shell”, **2007**, A JL, 674, L85
4. D. Kocevski, **M. Modjaz**, J. S. Bloom, R. Foley, D. Starr, C. H. Blake, E. E. Falco, N. R. Butler, M. Skrutskie, & A. Szentgyorgyi, “Multicolor Infrared Observations of SN 2006aj, the Supernova Associated with XRF 060218 - Paper I”, **2007**, ApJ, 663, 1180
3. **M. Modjaz et al. (2006)**, “Early-Time Photometry and Spectroscopy of the Fast Evolving SN 2006aj Associated with GRB 060218”, 2006, ApJ, 645, L21
2. **M. Modjaz**, J. M. Moran, P. T. Kondratko, & L. J. Greenhill (2005), “Probing the Magnetic Field at Subparsec Radii in the Accretion Disk of NGC 4258”, **2005**, ApJ, 626, 104
1. **M. Modjaz**, W. Li, A. V. Filippenko, J. Y. King, D. C. Leonard, T. Matheson, R. R. Treffers, Richard R. & A. G. Riess, “The Subluminous Type Ia Supernova 1998de in NGC 252”, **2001**, PASP, 113, 308

Other Articles in Refereed Journals

1109 citations as of June 2011

29. Levan, A. et al (incl. **M. Modjaz**), ”An extremely luminous panchromatic outburst from the nucleus of a distant galaxy”, 2011, Science, accepted (arXiv:1104.3356)
28. Chornock, R. et al **M. Modjaz**), ”The Transitional Stripped-Envelope SN 2008ax: Spectral Evolution and Evidence for Large Asphericity”, 2011, ApJ, accepted (arXiv:1001.2775)

27. Li, W. et al. (incl. **M. Modjaz**), "Nearby Supernova Rates from the Lick Observatory Supernova Search. II. The Observed Luminosity Functions and Fractions of Supernovae in a Complete Sample", 2011, MNRAS, 412, 1441
26. Lewis, F. et al. (incl. **M. Modjaz**), "The double-peaked 2008 outburst of the accreting milli-second X-ray pulsar, IGR J00291+5934", 2010, A&A, 517, 72
25. Kocevski, D. et al. (incl. **M. Modjaz**), "Limits on radioactive powered emission associated with a short-hard GRB 070724A in a star-forming galaxy", 2010, MNRAS, 404, 963
24. Maurer, J. I. et al (incl. **M. Modjaz**), "Characteristic velocities of stripped-envelope core-collapse supernova cores", 2010, MNRAS, 402, 161
21. Levesque, Emily M. et al. (incl. **M. Modjaz**), "GRB090426: the environment of a rest-frame 0.35-s gamma-ray burst at a redshift of 2.609", 2010, MNRAS, 401, 963
22. Kocevski, D., West, A., & **M. Modjaz** 2009, "Modeling The GRB Host Galaxy Mass Distribution: Are GRBs Unbiased Tracers of Star Formation?", 2009, ApJ, 702, 377
21. Read, A. (incl. **M. Modjaz**) et al. , "XMMSL1 J060636.2-694933: an XMM-Newton slew discovery and Swift/Magellan follow up of a new classical nova in the LMC", 2009, A&A, 506, 1309
20. Foley, R. J. et al. (incl. **M. Modjaz**), "SN 2008ha: An Extremely Low Luminosity and Exceptionally Low Energy Supernova", 2009, AJ, 138, 376
19. M., Hicken et al. (incl. **M. Modjaz**), "CfA3: 185 Type Ia Supernova Light Curves from the CfA", 2009, ApJ, 700, 331
18. Wang, X. et al. (incl. **M. Modjaz**), "The Golden Standard Type Ia Supernova 2005cf: Observations from the Ultraviolet to the Near-Infrared Wavebands", 2009, ApJ, 697, 380
17. Poznanski, D. et al (incl. **M. Modjaz**), "Improved Standardization of Type II-P Supernovae: Application to an Expanded Sample", 2009, 694, 1067
16. S. Blondin (incl. **M. Modjaz**) et al, "A Second Case of Variable Na I D Lines in a Highly-Reddened Type Ia Supernova", 2009, ApJ, 693, 207
15. Miller, A. A. et al. (incl. **M. Modjaz**), "The Exceptionally Luminous Type II-Linear Supernova 2008es", 2009, ApJ, 690, 1303
14. W. M. Wood-Vasey (incl. **M. Modjaz**) et al, "Type Ia Supernovae are Good Standard Candles in the Near Infrared: Evidence from PAIRITEL", 2008, ApJ, 89, 377
13. Perley, D. A. (incl. **M. Modjaz**) et al., "GRB 071003: Broadband Follow-up Observations of a Very Bright Gamma-Ray Burst in a Galactic Halo", 2008, ApJ, 688, 470
12. Gal-Yam, A. (incl. **M. Modjaz**) et al, "GALEX Spectroscopy of SN 2005ay Suggests Ultraviolet Spectral Uniformity among Type II-P Supernovae", 2008, ApJ, 685, 117

11. Rest, A. (incl. **M. Modjaz**) et al, "Spectral Identification of an Ancient Supernova Using Light Echoes in the Large Magellanic Cloud", 2008, ApJ, 680, 1137
10. Covino, S. (incl. **M. Modjaz**) et al., "The complex light curve of the afterglow of GRB071010A", 2008, MNRAS, 388, 347
9. L. Dessart et al. (incl. **M. Modjaz**), "Using Quantitative Spectroscopic Analysis to Determine the Properties and Distances of Type II-Plateau Supernovae: SNe 2005cs and 2006bp", 2008, ApJ, 675, 644
8. H. Hao et al. (incl. **M. Modjaz**), "Strongly Variable $z=1.48$ MgII and FeII Absorption in the Spectra of $z=4.05$ GRB 060206", 2007, ApJ, 659, L99
7. P. J. Brown et al. (incl. **M. Modjaz**), "Early Ultraviolet, Optical and X-Ray Observations of the Type IIP SN 2005cs in M51 with Swift", 2007, ApJ, 659, 1488
6. K. Z. Stanek, O. Y. Gnedin, J. F. Beacom, A. P. Gould, J. A. Johnson, J. A. Kollmeier, **M. Modjaz**, M. H. Pinsonneault, R. Pogge, & D. H. Weinberg, "Protecting Life in the Milky Way: Metals Keep the GRBs Away", 2007, Acta Astronomica, 56, 333
5. N. Tominaga et al (incl. **M. Modjaz**), "The Unique Type Ib Supernova 2005bf: A WN Star Explosion Model for Peculiar Light Curves and Spectra", 2005, ApJ, 633, L97
4. B. M. Peterson et al. (incl. **M. Modjaz**) "Steps toward Determination of the Size and Structure of the Broad-Line Region in Active Galactic Nuclei. XVI. A 13 Year Study of Spectral Variability in NGC 5548", 2002, ApJ, 581, 197
3. W. Li, A. V. Filippenko, S. D. Van Dyk, J. Hu, Y. Qiu, Yulei, **M. Modjaz**, & D. C. Leonard, "A Hubble Space Telescope Snapshot Survey of Nearby Supernovae", 2002, PASP, 114, 404
2. W. Li et al. (incl. **M. Modjaz**), "The Unique Type Ia Supernova 2000cx in NGC 524", 2001, PASP 113, 1178
1. S. Jha et al. (incl. **M. Modjaz**), "The Type Ia Supernova 1998bu in M96 and the Hubble Constant", 1999, ApJS, 125, 73

Papers in preparation

- "Optical Spectra of 40 Type IIb, Ib and Ic Supernovae", **M. Modjaz**, R. P. Kirshner, S. Blondin, P. Challis, & M. Hicken, etc

Circulars (*109 citations as of June 2011*)

- 75 First-authored IAUCs (International Astronomical Union Circulars)
- 31 First-authored CBETs (Central Bureau Electronic Telegrams)
- 3 First-authored GCN Circulars (Gamma-Ray Burst Coordinates Network)