

# DANIEL KOCEVSKI

---

Kavli Institute for Particle Astrophysics and Cosmology  
Stanford University  
2575 Sand Hill Road M/S 29  
Menlo Park, CA 94025

Phone: +01 510-316-3208  
Fax: +01 510-642-3411  
kocevski@stanford.edu  
<http://www.kocevski.com>

## Summary

Current Position: Research Associate, Stanford University  
Research Interests: Temporal and Spectral Properties of Gamma-ray Bursts  
Gamma-ray Burst & Supernova Host Galaxies and Progenitors  
Time Domain Astrophysics

## Education:

2002 - 2005 **Ph.D., Astrophysics**  
Rice University, Houston, Texas  
Thesis Title: *Spectral and Temporal Properties of Gamma-ray Bursts*  
1999 - 2002 **Master of Science, Astrophysics**  
Rice University, Houston, Texas  
1995 - 1999 **Bachelor of Science, Physics and Astronomy**  
University of Michigan, Ann Arbor, Michigan

## Research Experience

2008 - 2011 **Research Associate**  
**Stanford University**  
Faculty Advisor: Dr. Tsuneyoshi Kamae  
Temporal and spectral analysis of high-energy transient phenomena detected by NASA's Fermi Gamma-ray Space Telescope.  
2005 - 2008 **NSF Astronomy & Astrophysics Postdoctoral Fellow**  
**University of California, Berkeley**  
Sponsors: Dr. Joshua Bloom & Dr. Saul Perlmutter  
The investigation of gamma-ray bursts for cosmological applications using data collected by NASA's Swift spacecraft  
2005 **Postdoctoral Researcher**  
**Lawrence Berkeley National Laboratory**  
Dr. Greg Aldering, The Supernova Factory Project  
Contributed to the development of an automated supernovae search program  
1999 - 2004 **Graduate Research Assistant**  
**Rice University**  
Research Assistant to Professor Edison Liang  
The temporal and spectral analysis of gamma-ray bursts detected by NASA's Compton Gamma-ray Observatory

1997 - 1998 **Undergraduate Research Assistant**  
**University of Michigan, Ann Arbor**  
Research Assistant to Dr. Timothy Mckay and Dr. Carl Akerlof  
Assisted in the development of the ROTSE-I & ROTSE-II telescopes

## Research Grants and Awards

- 2011 - 2012 **Fermi Guest Investigator Program - Cycle 4**  
Proposal Title: "*Time Resolved Spectroscopy of Gamma-ray Bursts*"  
Funds Awarded: \$80,000
- 2010 - 2011 **Fermi Guest Investigator Program - Cycle 3**  
Proposal Title: "*Time Resolved Spectroscopy of Gamma-ray Bursts*"  
Funds Awarded: \$80,000
- 2010 - 2011 **Swift Guest Investigator Program - Cycle 7**  
Proposal Title: "*Evolution of Gamma-Ray Bursts and Cosmology*"  
Funds Awarded: \$38,000
- 2008 - 2009 **Fermi Guest Investigator Program - Cycle 2**  
Proposal Title: "*Time Resolved Spectroscopy of Gamma-ray Bursts*"  
Funds Awarded: \$80,000
- 2008 - 2009 **Fermi Guest Investigator Program - Cycle 1**  
Proposal Title: "*Time Resolved Spectroscopy of Gamma-ray Bursts*"  
Funds Awarded: \$80,000
- 2005 - 2008 **National Science Foundation Astronomy & Astrophysics Postdoctoral Fellowship**  
Proposal Title: "*On the Cosmological Applications of Gamma-ray Bursts*"  
Sponsorship: Dr. Joshua Bloom and Dr. Saul Perlmutter, U.C. Berkeley  
Funds Awarded: \$201,000
- 2001 - 2004 **NASA Graduate Student Research Program**  
Proposal Title: "*Spectral and Temporal Properties of Gamma-ray Bursts*"  
Sponsorship: Dr. Jerry Fishman, Marshall Space Flight Center, NASA  
Funds Awarded: \$67,800

## Invited Talks

- 2011 **North Carolina State University, Raleigh**  
Conference: The Prompt Activity of Gamma-Ray Bursts  
Talk: "*On the origin of high energy correlations in gamma-ray bursts*"
- 2011 **University of Denver**  
Department Colloquium  
Talk: "*High energy observations of the gamma-ray bursts with Fermi*"
- 2011 **University of California, Santa Cruz**  
Department Colloquium  
Talk: "*What host galaxy demographics can tell us about GRB progenitors*"
- 2010 **NASA Goddard Space Flight Center**  
Conference: Gamma-ray Bursts 2010  
Talk: "*The mass-metallicity relationship for GRB host galaxies*"
- 2010 **Rice University**  
Department Colloquium  
Talk: "*Gamma-ray bursts in the Fermi era*"

- 2009 **University of San Francisco**  
 Department Colloquium  
 Talk: “*Gamma-ray bursts in the Fermi era*”
- 2009 **University of California, Santa Barbara**  
 Conference: High Energy Astrophysics Workshop  
 Talk: “*A review of Fermi observations of gamma-ray bursts*”

## Teaching Experience

- 2009 **University of San Francisco**  
 Fall semester instructor for an introductory planetary astronomy course for non-majors  
 Physics 121: Introduction to Planetary Astronomy
- 2008 - 2009 **University of California, Berkeley**  
 Summer semester instructor for an introductory astronomy course for non-majors  
 Astronomy 10: Introduction to Astronomy
- 2004 - 2008 **San Quentin Prison, Marin, CA**  
 Volunteer lecturer with the University Prison Project, Patten College  
 Math 50: Pre-Algebra
- 2000 - 2004 **Rice University**  
 Teaching assistant for undergraduate and graduate courses  
 Duties included lecturing, running laboratory sessions and grading  
 Astronomy 551: Introduction to Astrophysics  
 Astronomy 201: Star, Galaxies, and the Universe  
 Astronomy 202: Introduction to Astronomy  
 Physics 102, 126: Electrodynamics  
 Physics 101, 125: Mechanics
- 1997 - 1999 **University of Michigan, Ann Arbor**  
 Teaching assistant for Keller Tutor course  
 Keller Tutor 140: Introductory Mechanics  
 Keller Tutor 240: Introductory Electrodynamics
- 1996 - 1999 **University of Michigan, Ann Arbor**  
 Organized and ran the weekly Angle Hall observatory public open house
- 1995 - 1999 **Student Astronomical Society, University of Michigan, Ann Arbor**  
 Participated in several outreach and in reach programs with local community schools.

## References

- Dr. Joshua Bloom** UC Berkeley, 510-643-3839, [jbloom@astro.berkeley.edu](mailto:jbloom@astro.berkeley.edu)  
**Dr. Neil Gehrels** NASA/GSFC, 301-286-6546, [neil.gehrels@nasa.gov](mailto:neil.gehrels@nasa.gov)  
**Dr. Nicola Omodei** Stanford University, 650-391-5773, [nicola.omodei@gmail.com](mailto:nicola.omodei@gmail.com)  
**Dr. Edison Liang** Rice University, 713-838-9089, [liang@spacibm.rice.edu](mailto:liang@spacibm.rice.edu)  
**Dr. Enrico Ramirez-Ruiz** UC Santa Cruz, 831-459-3400, [enrico@ucolick.org](mailto:enrico@ucolick.org)

## First Author & Contact Author Publications

- **Kocevski, D.**, Petrosian, V. 2011 in press, arXiv:astro-ph/1110.6175  
*“On The Lack of Time Dilation Signatures in Gamma-ray Burst Light Curves”*
- **Kocevski, D.** 2011 in press, arXiv:astro-ph/1110.6173  
*“On The Origin Of High Energy Correlations in Gamma-ray Bursts”*
- The Fermi Collaboration 2011 in press, arXiv:astro-ph/1201.3948  
*“Constraining the High Energy Emission from Gamma-ray Bursts with Fermi”*
- The Fermi Collaboration 2011 in press  
*“Broad band observations of GRB 110731A with Fermi & Swift”*
- **Kocevski, D.**, West, A. 2011 ApJ, 735, 8  
*“On The Origin Of The Mass-Metallicity Relation For GRB Host Galaxies”*
- **Kocevski, D.** et. al 2010 MNRAS, 404, 963  
*“Limits on Radioactive-Powered Emission Associated With a Short-Hard GRB 070724A in a Star-Forming Galaxy”*
- **Kocevski, D.**, West, A. & Modjaz, M. 2009, ApJ 702, 377K  
*“Modeling The Mass Distribution of GRB Host Galaxies”*
- **Kocevski, D.**, Butler, N. 2007, ApJ, 680, 531K  
*“GRB Energetics in the Swift Era”*
- **Kocevski, D.**, Butler, N., & Bloom, J. S. 2007, ApJ, 667, 1024K  
*“Pulse Width Evolution of Late-Time X-ray Flares in Gamma-Ray Bursts”*
- **Kocevski, D.**, Modjaz, M. et. al 2007, ApJ, 663, 1180K  
*“Multicolor Infrared Observations of SN 2006aj. I. The Supernova Associated with XRF 060218”*
- **Kocevski, D.**, Liang, E.P. 2006, ApJ, 642, 371K  
*“Quantifying the Luminosity Evolution in Gamma-Ray Bursts”*
- **Kocevski, D.**, Ryde, F., Liang, E.P. 2003, ApJ, 596, 389K  
*“Search for Relativistic Curvature Effects in Gamma-Ray Burst Pulses”*
- **Kocevski, D.**, Liang, E.P. 2003, ApJ, 594, 385  
*“The Connection Between Spectral Evolution and GRB Lag”*

## Other Refereed Publications

- The Fermi Collaboration 2010 ApJ, 717L, 127  
*“Fermi Observations of High-energy Gamma-ray Emission from GRB 090217A”*
- The Fermi Collaboration 2010, ApJ, 716, 1178  
*“Fermi Observations of GRB 090510: A Short-Hard Gamma-ray Burst with an Additional, Hard Power-law Component”*

- The Fermi Collaboration 2009, *Nature*, 462, 331  
*“A limit on the variation of the speed of light arising from quantum gravity effects”*
- The Fermi Collaboration 2009, *ApJ*, 706L, 138  
*“Fermi Observations of GRB 090902B: A Distinct Spectral Component in the Prompt and Delayed Emission”*
- The Fermi Collaboration 2010 *ApJ*, 712, 558  
*“Fermi Detection of Delayed GeV Emission from the Short Gamma-Ray Burst 081024B”*
- Butler, N., **Kocevski, D.**, & Bloom, J. 2009, *ApJ* 694, 76B  
*“Generalized Tests for Selection Effects in Gamma-Ray Burst High-Energy Correlations”*
- Butler, N., **Kocevski, D.**, Bloom, J. S., & Curtis, J. L. 2007, 671 656B  
*“A Complete Catalog of Swift GRB Spectra and Durations: Demise of a Physical Origin for Pre-Swift High-Energy Correlations”*
- Butler, N. & **Kocevski, D.** 2007, *ApJ*, 668, 400B  
*“X-Ray Hardness Variations as an Internal/External Shock Diagnostic”*
- Butler, N. & **Kocevski, D.** 2007, *ApJ*, 663, 407B  
*“X-Ray Hardness Evolution in GRB Afterglows and Flares: Late-Time GRB Activity without NH Variations”*
- Ryde, F. & **Kocevski, D.** Bagoly, Z., Ryde, N., & Mszros, A. 2005, *A&A*, 432, 105R  
*‘Interpretations of gamma-ray burst spectroscopy. II. Bright BATSE bursts’*
- Perley, D. A., et al. 2009, *ApJ* 138, 1690P  
*“The Host Galaxies of Swift Dark Gamma-ray Bursts: Observational Constraints on Highly Obscured and Very High Redshift GRBs’*
- Bloom, J. A., et al. 2009, *ApJ* 691, 723B  
*“Observations of the Naked-Eye GRB 080319B: Implications of Nature’s Brightest Explosion’*
- Modjaz, M. et al. 2009, *ApJ* 702 226M  
*“From Shock Breakout to Peak and Beyond: Extensive Panchromatic Observations of the Aspherical Type Ib Supernova 2008D associated with Swift X-ray Transient 080109’*
- Perley, D. A., et al. 2009, *ApJ* 696, 1871P  
*“GRB 080503: Implications of a Naked Short Gamma-Ray Burst Dominated by Extended Emission”*
- Perley, D. A., et al. 2008 672, 449P  
*“The Troublesome Broadband Evolution of GRB 061126: Does a Grey Burst Imply Grey Dust?”*
- Bloom, J. S. et al. 2007, *ApJ*, 654, 878B  
*“A Putative Early-Type Host Galaxy for GRB 060502B: Implications for the Progenitors of Short-Duration Hard-Spectrum Bursts”*

- Fynbo, J. et al. 2006, *Nature*, 444, 1047F  
“No supernovae associated with two long-duration gamma-ray bursts”
- Butler, N. et al. 2006, *ApJ*, 652, 1390B  
“When Do Internal Shocks End and External Shocks Begin? Early-Time Broadband Modeling of GRB 051111”
- Aldering, G. et al. 2006, *ApJ*, 650, 510A  
“Nearby Supernova Factory Observations of SN 2005gj: Another Type Ia Supernova in a Massive Circumstellar Envelope”
- Boggs, S. et al. 2006, *NewAR*, 50, 604B  
“The Advanced Compton Telescope mission”