

Gregory R. Sivakoff

Curriculum Vitae 1 of 7

Research Associate (Postdoc), University of Virginia Department of Astronomy

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EDUCATION:

UNIVERSITY OF VIRGINIA, Charlottesville, VA Astronomy M.Sc. (2003), Ph.D. (2006)	Aug. 2001 – Aug. 2006
UNIVERSITY OF MANCHESTER, Manchester, UK Radio Astronomy M.Sc.	Sep. 2000 – Nov. 2001
BRANDEIS UNIVERSITY, Waltham, MA Physics B.Sc., Mathematics B.A.	Sep. 1996 – May 2000

FELLOWSHIPS AND AWARDS:

DuPont Fellow (UVa)	Aug. 2005 – Aug. 2006
Raven Society (UVa)	2005
Virginia Space Grant Consortium Aerospace Graduate Fellow	Aug. 2004 – Aug. 2006
Achievement Rewards for College Scientists Fellow	Aug. 2003 – Aug. 2005
Presidents Fellow (UVa)	Aug. 2001 – Aug. 2004
Fulbright Scholar (US/UK)	Sep. 2000 – Aug. 2001
Barry M. Goldwater Scholar	Sep. 1999 – May 2000
Schiff Fellow (Brandeis)	Sep. 1999 – May 2000
University Scholar (Brandeis)	1998
Physics Faculty Prize (Brandeis)	2000
Stephen Berko Memorial Prize in Physics (Brandeis)	2000
Phi Beta Kappa (Junior)	1999
J. V. Cunningham Writing Award in Science (Brandeis)	1999
Justice Brandeis Scholar	Sep. 1996 – May 2000
Robert C. Byrd Scholar	1996
National Merit Scholar	1996
Eagle Scout	1994

MISCELLANEOUS:

Have 24 papers in refereed journals (7 as the first author, 11 as the second/third author).

Publications cited about 340 times through 08/15/09 (about 196 times in 2008/2009).

H-indices: 9/8/5 (Any author/First-Third author/First-author)

ASTRONOMICAL RESEARCH:

UNIVERSITY OF VIRGINIA DEPARTMENT OF ASTRONOMY, Charlottesville, VA

Research Associate (Postdoc) Sep. 2008 – present

- X-ray Content of Early-Type Galaxies: Concentrating on the origin of low-mass X-ray binaries, their variability, and connection to globular clusters.
- Galactic Compact Objects: Multi-wavelength studies of transient X-ray binaries, X-ray sources in Galactic globular clusters, and Gamma-ray detected pulsars.
- AGN in Galaxy Clusters: Characterizing AGN content with Chandra X-ray and MDM optical observations.
- Quasar Properties: Comparing properties (e.g., masses, Eddington ratios) for various subsamples in the SDSS quasar catalogs.

THE OHIO STATE UNIVERSITY DEPARTMENT OF ASTRONOMY, Columbus, OH

Postdoctoral Researcher Sep. 2006 – Sep. 2008

- AGN in Galaxy Clusters: Characterizing AGN content with Chandra observations.
- X-ray Content of Early-Type Galaxies: Concentrating on the origin of low-mass X-ray binaries, their variability, and connection to globular clusters.
- Broad Absorption Line Quasars: Multiple wavelength comparison of broad absorption line detection using SDSS/2MASS/FIRST.

UNIVERSITY OF VIRGINIA DEPARTMENT OF ASTRONOMY, Charlottesville, VA

Fellowship Supported Graduate Student Aug. 2001 – Aug. 2006

- Chandra Observations of Early-Type Galaxies: Examined the point source population, predominantly low mass X-ray binaries, and diffuse gas, concentrating on luminosity functions, spectral properties, variability, and spatial profiles. Compared low mass X-ray binary and globular cluster populations.
- Galaxy Distribution in 2MASS: Examined gravitational quasi-equilibrium distribution and distribution near X-ray selected clusters.

UNIVERSITY OF MANCHESTER, Manchester, UK

Fulbright Scholar Sep. 2000 – Aug. 2001

- VLA & MERLIN Observations of the Quasar 0800+608: Examined unpolarized morphology, spectral behavior, fractional polarization, Faraday rotation, and 3-D hydrodynamic simulations to study atypical morphology.

MIT HAYSTACK OBSERVATORY, Westford, MA

NSF Research Experience for Undergraduates Intern Jun. 1999 – Aug. 1999

- Very Long Baseline Array Observation of R Cassiopeia: Calibrated, imaged, and analyzed first 3mm observation of this star.

BRANDEIS UNIVERSITY PHYSICS DEPARTMENT, Waltham, MA

Research Assistant Jan. 1998 - May 2000

- Relativistic AGN Jets: Analysis of dual frequency polarization VLBA observations of 12 AGN. Developed C++ computer simulation of Blandford-Königl model for inhomogeneous relativistic jets.

GRANTS & ALLOCATED OBSERVING TIME:

SCIENCE PI “Binary Formation in the Sparse Galactic Globular Cluster NGC 3201” NASA, Chandra Cycle 11: TBD: 85,000 seconds on Chandra; 1 hour on Green Bank Telescope; 1 orbit on Hubble	TBD Funds not yet allocated
SCIENCE PI “Constraining the Distance & Temperature of LAT PSR J1742-20, The Newly Discovered Nearby Middle-Aged Neutron Star” NASA, Chandra Cycle 11: TBD: 50,000 seconds on Chandra	TBD Funds not yet allocated
Co-I “Probing Jet Acceleration and Collimation in Stellar-Mass Compact Objects” NRAO, 2009A: 274 hours VLBA; 65.5 hours VLA	\$0 Jun. 2009 - Dec. 2010
PI “Spectroscopic Confirmation of Galaxy Cluster Candidate Behind Virgo” APO, 2009-Q2: Two half-nights on Apache Point Observatory 3.5m	\$0 Apr. 2009 - Jun. 2009
Co-I “Probing The Globular Cluster / Low Mass X-ray Binary Connection in Early-type Galaxies At Low X-ray Luminosities” NASA, Hubble Cycle 17: HST-GO-11679: 6 orbits on Hubble	TBD Funds not yet allocated
Co-I “The Distribution of AGN in Clusters of Galaxies” NASA, Chandra Cycle 9: Archive	\$70,000 Oct. 2007 - Oct. 2009
Co-I “Development of a Model Teacher/Student Workshop Program for Ohio Middle Schools” NASA, Chandra E/PO Cycle 8: E/PO	\$49,981 Jan. 2007 - Jan. 2009
SCIENCE PI “Deep Chandra and Hubble Observations of NGC 1023: Testing the Origin of Low-Mass X-Ray Binaries in a Lenticular Galaxy” NASA, Chandra Cycle 8: 192,000 seconds on Chandra; 8 orbits on Hubble (8 lost due to ACS failure)	\$73,444 Apr. 2007 - Apr. 2009
Co-I “Jets, Bubbles, Binaries, and Hot Gas: A Deep Observation of Centaurus A” NASA, Chandra Cycle 8: 600,000 seconds on Chandra	\$220,000 Mar. 2007 - Mar. 2009

GRANTS & ALLOCATED OBSERVING TIME: (continued)

SCIENCE PI “Probing The Globular Cluster / Low Mass X-ray Binary Connection in Early-type Galaxies At Low X-ray Luminosities” NASA, Hubble Cycle 15: HST-GO-10835: 10 orbits on Hubble (6 lost due to ACS failure)	\$39,957 Jan. 2007 - Jan. 2009
Co-I “Understanding Gas Interactions in Groups: NGC 1600” NASA-GSFC, XMM-Newton Cycle 5: NNX06AE78G: 85,300 seconds (B) on XMM	\$64,366 Aug. 2006 - Aug. 2007
SCIENCE PI “Probing the Galaxy-wide Globular Cluster - Low Mass X-ray Binary Connection in Early-type Galaxies” NASA, Hubble Cycle 14: HST-GO-10582: 12 orbits on Hubble	\$47,946 Dec. 2005 - Dec. 2007
Co-I “Resolving the Connection Between Globular Clusters and Low-Mass X-ray Binaries” NASA, Hubble Cycle 14: HST-GO-10597: 9 orbits on Hubble	\$10,292 Nov. 2005 - Nov. 2007
SCIENCE PI “Stellar Evolution Planetarium Show at the Science Museum of Virginia” NASA, Chandra E/PO Cycle 6: E/PO GO5-6086X	\$25,896 Jan. 2005 - Aug. 2006
SCIENCE PI “Low Mass X-ray Binaries and Globular Clusters in the Early-Type Galaxy NGC 4365” NASA, Chandra Cycle 6: GO5-6086X: 160,000 seconds on Chandra	\$71,179 Jan. 2005 - Aug. 2006
SCIENCE PI “Using the Chandra Archive To Study Low Mass X-ray Binaries and Globular Clusters in Virgo and Non-Virgo Early-Type Galaxies” NASA, Chandra Cycle 5: AR4-5008X	\$30,520 Jan. 2004 - Jan. 2005
OBSERVING CO-I “Deep Chandra and Hubble Observations NGC 4697, the Nearest Optically Luminous, X-ray Faint Elliptical Galaxy” NASA, Chandra Cycle 5: GO4-5093X: 160,000 on Chandra	\$74,399 Jan. 2004 - Jan. 2005
OBSERVING CO-I “Deep Chandra and Hubble Observations NGC 4697, the Nearest Optically Luminous, X-ray Faint Elliptical Galaxy” NASA, Hubble Cycle 12: HST-GO-10003: 1 orbit on Hubble	\$8,959 Feb. 2004 - Jan. 2006

TEACHING:

UNIVERSITY OF VIRGINIA DEPARTMENT OF ASTRONOMY, Charlottesville, VA

Theses Co-advisor Jan. 2009 - May 2009

- Co-advised (with Craig Sarazin) two senior theses on X-ray Binarys in Lenticular Galaxies.

UNIVERSITY OF VIRGINIA DEPARTMENT OF ASTRONOMY, Charlottesville, VA

Invited Lecturer Apr. 2009

- Prepared & presented lecture on X-ray Binary research and astronomical careers for undergraduate major's seminar.

UNIVERSITY OF VIRGINIA DEPARTMENT OF ASTRONOMY, Charlottesville, VA

Substitute Lecturer Oct. 2008

- Prepared & presented lecture on Supernova Blast Waves for graduate astronomy class.

UNIVERSITY OF VIRGINIA DEPARTMENT OF ASTRONOMY, Charlottesville, VA

Substitute Lecturer Oct. 2008

- Prepared & presented lecture on Supernova Blast Waves for graduate astronomy class.

UNIVERSITY OF VIRGINIA DEPARTMENT OF ASTRONOMY, Charlottesville, VA

Substitute Lecturer Oct. 2008

- Prepared & presented lecture on Supernova Blast Waves for graduate astronomy class.

UNIVERSITY OF VIRGINIA DEPARTMENT OF ASTRONOMY, Charlottesville, VA

Substitute Lecturer Apr. 2006

- Prepared & presented lecture on Sun for introductory astronomy class.

BRANDEIS UNIVERSITY PHYSICS DEPARTMENT, Waltham, MA

Teaching Assistant for Introduction to Astronomy Jan. 2000 - May 2000

- Led observatory sessions: Telescope lectures, naked eye observing, & telescope (manual pointing 24" Cassegrain reflector) observing.
- Reviewed class material during office hours.
- Webmaster: Updated old site, added math tutorials, & moderated bulletin board.

BRANDEIS UNIVERSITY TUTORIAL SERVICES, Waltham, MA

Physics Peer Tutor Oct. 1998 - May 1999

- Tutored introductory physics students in Mechanics & Electromagnetism.

ORAL PRESENTATIONS:

2009

- Public Talk for Public-Night, University of Virginia, Charlottesville, VA
- Contributed Talk, The Many Faces of Centaurus A, Sydney, Australia

2008

- Public Talk for Osher Lifetime Learning Institute, University of Virginia, Charlottesville, VA
- Physics & Astronomy Colloquium, University of Louisville, Louisville, KY
- Press Release, The Black Hole Briefing at the 211th AAS meeting, Austin, TX

2007

- Contributed Talk, A Population Explosion: The Nature & Evolution of X-ray Binaries in Diverse Environments, St. Pete Beach, FL
- Contributed Talk, Eight Years of Science with Chandra, Huntsville, AL
- Lunch Talk, National Radio Astronomy Observatory, Charlottesville, VA
- Physics & Astronomy Seminar, Denison University, Granville, OH
- Astrophysics Seminar, Ohio University, Athens, OH
- HEAD Lunch Talk, Harvard Center For Astrophysics, Cambridge, MA
- Lunch Talk, University of Michigan, Ann Arbor, MI
- Lunch Talk, Michigan State University, East Lansing, MI
- Astronomy and Astrophysics Seminar, Northwestern University, Evanston, IL
- Galaxies Lunch Talk, University of Wisconsin, Madison, WI

2006

- Astronomy Colloquium, The Ohio State University, Columbus, OH
- PhD Defense, University of Virginia, Charlottesville, VA
- Virginia Space Grant Consortium Student Research Conference, Newport News, VA
- AAS 207, Dissertation Talk, Washington, DC
- UVa Research Symposium, Charlottesville, VA

2005

- Astrophysics Seminar, Boston University, Boston, MA
- Astrophysics Seminar, Brandeis University, Waltham, MA
- IAU Symposium 230, Populations of High Energy Sources in Galaxies Dublin, Ireland
- Virginia Space Grant Consortium Student Research Conference, Newport News, VA
- UVa Research Symposium, Charlottesville, VA

2004

- NRAO Jansky Symposium, Charlottesville, VA

2001

- Consortium for European Research on Extragalactic Surveys Workshop, Crete, Greece

ORAL PRESENTATIONS: (continued)

2000

- Stephen Berko Memorial Prize Presentation, Stephen Berko Memorial Symposium, Waltham, MA

COMMITTEES:

UNIVERSITY OF VIRGINIA ASTRONOMY DEPARTMENT Member, Colloquium Committee	2004 - 2006
UNIVERSITY OF VIRGINIA ASTRONOMY DEPARTMENT Member, Computer Users Committee	2004 - 2005
UNIVERSITY OF VIRGINIA Member, Graduate Student Council	2003 - 2004
UNIVERSITY OF VIRGINIA ASTRONOMY DEPARTMENT Member, Public Outreach Committee	2002 - 2004

OUTREACH ACTIVITIES:

UVa Public Outreach Committee (2002 - 2004) • Telescope Operator for UVa McCormick Observatory Public Nights • Faculty Presenter for UVa McCormick Observatory Public Nights • Tour Guide for UVa Fan Mountain Observatory Public Nights • Support for UVa Public Outreach Special Events: Transit of Venus, Mars Mania, Leonid Meteor Showers, Osher Lifetime Learning Institute, & Aliens Film Festival • Online Participant in UVa Astronomy Question & Answers Outreach Program • Developed and led inquiry-based activities on the Sun for 1st graders at UVa McCormick Observatory • Developed and led inquiry-based activities on telescopes for 6th graders at Walton Middle School, Charlottesville, VA • Led inquiry-based activities on comets and star-charts for children at KidVentions 2006, Charlottesville, VA • Involved with development of exhibits for UVa McCormick Observatory, exhibits for traveling show for the Science Museum of Virginia, and planetarium shows for the Science Museum of Virginia • Primary investigator of a NASA Chandra X-ray Observatory Education/Public Outreach grant with Science Museum of Virginia • Co-investigator of a NASA Chandra X-ray Observatory Education/Public Outreach grant with COSI Science Museum

PROFESSIONAL SERVICE:

Referee for *Astrophysical Journal* & *Monthly Notices of the Royal Astronomical Society* • Peer reviewer for NASA Chandra X-ray Observatory Time-Allocation Committee • Peer reviewer for *ICREA*, Catalan Institution for Research and Advanced Studies

PROFESSIONAL SOCIETIES:

American Astronomical Society • High Energy Astrophysics Division of AAS