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Education:

Ph.D. in Physics, October 1995

California Institute of Technology, Pasadena, California

Advisor: Dr. S. G. Djorgovski

Thesis: The Luminosity Function of Quasars at Redshifts Greater than Four

B.S. in Physics, June 1989

University of Arkansas at Fayetteville, Advisor: Dr. Allen Hermann

Research: High-Temperature Superconducting Thin Films

Employment:

7/07 – Assistant Professor, Department of Physics, University of Arkansas
8/04 – 7/07 NSF ADVANCE Fellow, Dept. of Physics, University of Arkansas
8/03 – 7/04 Visiting Assistant Professor, Dept. of Physics, University of Arkansas
12/97 – 8/00 Postdoctoral Researcher, Astrophysics Dept., University of Oxford
11/95 – 11/97 Postdoctoral Researcher, Dept. of Astronomy, Ohio State University
9/92 – 10/95 Research Assistant at Caltech
6/90 – 9/90 LANL Summer Research Student
6/89 – 9/89 LANL Summer Research Student
1/88 – 5/89 Lab. Assistant, Physics Dept., Univ. of Arkansas

Grants and Awards:

6/97 American Astronomical Society Small Research Grant
2/97 CoI, STScI Grant no. AR-07535.01-96A, Award: \$33,099, "Quasar Candidates in the Hubble Deep Field"
8/04 NSF ADVANCE Fellows Grant #AST-0340837, Award: \$361,944, "The Evolution of the Quasar Luminosity Function"
4/05 Arkansas CSAPS Research Grant #NNG05GF01G, Award: \$31,410, "Hunting for Quasars with Z-Band Imaging"
2/06 National Virtual Observatory Research Initiative Grant #000012, Award: \$25,000, "Utilizing Catalog Cross-Matching for Discovery and Study of Quasars"
4/06 Arkansas CSAPS Research Grant #NNG05GF01G, Award: \$27,574, "Using the NVO for Quasar Discovery and Study"
7/06 NSF REU Supplement #AST-0619852, Award: \$7125
4/07 NSF REU Supplement #AST-0726006, Award: \$7125

Fellowships & Honors:

8/04 - 7/07 National Science Foundation ADVANCE Fellowship
9/89 - 9/95 National Physical Science Consortium Graduate Fellowship
9/92 - 6/93 Kingsley Foundation Graduate Fellowship, Caltech
1989 George D. Lingelbach Scholarship in Physics
6/88 - 9/88 Florida State University Summer Research Fellowship
8/86 - 5/87 National Merit Scholarship

Formal Teaching Activities:

Survey of the Universe: University of Arkansas, Dept. of Physics, ASTR2003 – Fall 2003,
Spring 2005, Spring 2006, Fall 2007

Planetary Science: University of Arkansas, CSAPS, SPAC5033/ASTR5033 – Fall 2005

Research Students:

Xxxxxx Xxxxxxx, M.S. Physics, June 2006, Thesis Title: “Selection and Discovery of Quasars at High Redshift Through Optical and Infrared Imaging: a J-band Extension of the BTC40 Survey”, continuing in Space Center Ph.D. program

Summer REU students: Xxxxxx Xxxxxxx (2006), Project: “Short Term Variability of Quasars Using the NFO Webscope”, Xxxxxx Xxxxxxx (2005), Project: “Recovering $3.0 < z < 3.5$ Quasars Using a Multicolor Technique”, Brian Fleming (2005), Project: “Short Term Variability in Quasar Magnitude”

Undergraduate Research Students: Xxxxxx Xxxxxxx (2006/2007), Xxxxxx Xxxxxxx (2006/2007)

Colloquia and Seminars:

February 21, 2007 - *Distances Across the Cosmos: From Hipparchus to the Accelerating Universe*, University of Arkansas, Space Center Public Lecture

January 2007 – *The Physics of AGN*, University of Arkansas, Physics Dept. Colloquium

March 17, 1998 – *A Search for Quasars at Redshifts Greater than Five*, Cardiff University, Dept. of Astronomy Colloquium

April, 1997 – *The Space Density of Quasars*, Observatorio Nacional de Rio, Brasil

January, 1996 – *The Quasar Luminosity Function*, Ohio State University, Dept. of Astronomy Colloquium

Recent Telescope Time Awarded:

NOAO #2006B-0310, GeminiS +GMOSS, J. Kennefick, S. Bursick, E. Monier, M.G. Smith, P.S. Osmer, 0.4n Queue time.

NOAO #2005B-0432, KP-21.m+CFIM, J. Kennefick, S. Bursick, 30 Nov – 05 Dec 2005.

NOAO #2005B-0432, KP-21.m+SQIID, J. Kennefick, S. Bursick, 03-09 Nov 2005.

NOAO #2005B-0290, CT-4m+ISPI, J. Kennefick, S. Bursick, E. Monier, M.G. Smith, P.S. Osmer, 12-13 Nov 2005

NOAO #2005A-0200, CT-4m+ISPI, J. Kennefick, S. Bursick, E. Monier, M.G. Smith, P.S. Osmer, 18-19 April 2005.

NOAO #2005A-0471, KP-21.m+SQIID, J. Kennefick, 21-22 Mar 2005.

Departmental Duties:

Physics Department Graduate Affairs Committee (observer): 2005-2007
Space Center Graduate Admissions Committee: 2006-2007

Recent Outreach Activities:

University Days: hosted K-12 students and teachers in UArk Physics Dept. by presenting interactive astronomy activities, February 2005, 2006, 2007.

High School Physics Day: helped to host secondary school students from around Arkansas for a day of interactive activities and competitions, March 2005, 2006, 2007.

Online chat session, Prairie Grove Elementary, April, 2005.

Career talks:

Central Middle School Career Day, Van Buren, AR, April 20, 2006

Leverett Elementary, Fayetteville, AR, May 8, 2006

Haas Hall, Fayetteville, AR, October 3, 2006

Project Astro Partnerships:

Central Middle School, Van Buren, AR, December 2006

Leverett Elementary School, Fayetteville, AR, May 2007

Professional Interests: Observational cosmology, AGN, quasars, the quasar luminosity function, galaxy formation and evolution, the formation and evolution of structure in the universe.

Professional Societies:

American Astronomical Society (AAS) and the Astronomical Society of the Pacific (ASP)

Personal Information:

Born: 30th January, 1969, Fort Smith, Arkansas, USA , Maiden name: Smith

Research References:

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Teaching Reference:

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Bibliography:

1. Papers published in refereed journals:

- “A New 120K TL-CA-BA-CU-O Superconductor”, Sheng, Z.Z., Kiehl, W., Bennett, J., Elali, A., Marsh, D., Mooney, G.D., Arammash, F., Smith, J., Viar, D., and Hermann, A. 1988, *Applied Physics Letters*, 52, 1738.
- “A Hypervelocity Microparticle Impacts Laboratory with 100 km/s Projectiles”, P.W. Keaton, *et al.* 1990, *Int. J. Impact Engng.*, 10, 295.
- “Multicolor Detection of High-Redshift Quasars: I. Two Objects at $z > 4$ ”, Smith, J.D., Thompson, D., and Djorgovski, S. 1994, *Astron. J.*, 107, 24.
- “Deep Imaging of the Field of $z = 4.9$ Quasar PC 1247+3406, and Faint Galaxy Counts in the K-band with the Keck Telescope”, Soifer, B.T., Matthews, K., Djorgovski, S., Graham, J.R., Harrison, W., Jernigan, G., Larkin, J., Lin, S., Nelson, J., Neugebauer, G., Smith, G., Smith, J.D., and Ziomkowski, C. 1994, *Astrophys. J. Letters*, 420, L1.
- “Multicolor Detection of High-Redshift Quasars: II. Five Objects at $z \geq 4$ ”, Smith, J.D., Djorgovski, S., Thompson, D., Briskeen, W., Neugebauer, G., Matthews, K., Meylan, G., Piotto, G., and Suntzeff, N. 1994, *Astron. J.*, 108, 1147.
- “Deep Galaxy Counts in the K-band with the Keck Telescope”, Djorgovski, S., Soifer, B.T., Pahre, M.A., Larkin, J., Smith, J.D., Neugebauer, G., Smail, I.R., Matthews, K., Hogg, D.W., Blandford, R.D., Cohen, J., Harrison, W., and Nelson J. 1995, *Astrophys. J. Letters*, 438, L13.
- “1608+654: A New Quadruple Lens System Found in the CLASS Gravitational Lens Survey”, Myers, S., Fassnacht, C., Blandford, R., Djorgovski, S., Matthews, K., Neugebauer, G., Pearson, T., Readhead, A., Smith, J., Thompson, D., Browne, I., Wilkinson, P., Nair, S., Jackson, N., Snellen, I., Miley, G., de Bruyn, G., and Schilizzi, R. 1995, *Astrophys. J. Letters*, 447, L5.
- “The Discovery of Five Quasars at $z > 4$ Using the Second Palomar Sky Survey”, Kenefick, J.D., de Carvalho, R.R., Djorgovski, S.G., Wilber, M.M., Dickson, E.S., Weir, N., Fayyad, U., and Roden, J. 1995, *Astron. J.*, 110, 78.
- “The Luminosity Function of $z > 4$ Quasars from the Second Palomar Sky Survey”, Kenefick, J.D., Djorgovski, S.G., and de Carvalho, R.R. 1995, *Astron. J.*, 110, 2553.
- “A Multicolor CCD Survey for Faint $z > 4$ Quasars”, Kenefick, J.D., Djorgovski, S.G., and Meylan, G. 1996, *Astron. J.*, 111, 1816.
- “A Deep Multicolor Survey. III. Additional Spectroscopy and Implications for the Number Counts of Faint Quasars”, Kenefick, J.D., Osmer, P.S., Hall, P.B., and Green, R.F. 1997, *Astron. J.*, 114, 2269.

“A Deep Multicolor Survey. IV. The Electronic Stellar Catalog”, Osmer, P.S., Kennefick, J.D., Hall, P.B., and Green, R.F. 1998, *Astrophys. J. Supp.*, 119, 189.

“Quasar Candidates in the Hubble Deep Field”, Conti, A., Kennefick, J.D., Martini, P., and Osmer, P.S. 1999, *Astron. J.*, 117, 645.

“The BTC40 Survey for Quasars at $4.8 < z < 6$ ”, Monier, E., Kennefick, J.D., Osmer, P.S., Hall, P.B., Smith, M.G., Dalton, G.B., and Green, R.F. 2002, *Astron. J.*, 124, 2971.

“Infrared Imaging of SDSS Quasars: Implications for the Quasar K Correction”, Kennefick, J. & Bursick, S. 2007, submitted to the *Astron. J.*

2. Contributed conference papers:

“A Search for Quasar Protoclusters at $z > 4$ ”, Djorgovski, S., Smith, J.D., and Thompson, D.J. 1991, in D. Crampton (ed.), *The Space Distribution of Quasars*, A.S.P.C.S. 21, 325.

“A Search for Protoclusters at $z > 4$ ”, Smith, J.D., Thompson, D., and Djorgovski, S. 1993, in D. Hollenbach, J.M. Shull, and H.A. Thorson (eds.), *The Evolution of Galaxies and their Environment*, NASA CP-3190, p. 36.

“A Search for Quasar-Marked Protoclusters”, Smith, J.D., Thompson, D.J., and Djorgovski, S. 1993, in B.T. Soifer (ed.), *Sky Surveys: Protostars to Protogalaxies*, A.S.P.C.S. 43, 185.

“Limits on Lyman-alpha Luminous Protogalaxies”, Djorgovski, S., Thompson, D., and Smith, J.D., 1993, in C. Akerlof and M. Srednicki (eds.), *Texas/PASCOS '92: Relativistic Astrophysics and Particle Cosmology*, Ann. N.Y. Acad. Sci. 688, 515.

“Surveys for Protogalaxies and Protoclusters”, Thompson, D., Smith, J.D., Djorgovski, S., Trauger, J., and Beckwith, S. 1993, in G. Chincarini, A. Iovino, T. Maccacaro, and D. Maccagni (eds.), *Observational Cosmology*, A.S.P.C.S. 51, 310.

“Cataloging the Northern Sky Using a New Generation of Software Technology”, Weir, N., Djorgovski, S., Fayyad, U., Smith, J.D., and Roden, J. 1994, in H. MacGillivray *et al.* (eds.), *Astronomy From Wide-Field Imaging*, Proceedings of the IAU Symp., 161, p. 205. Dordrecht: Kluwer.

“The Luminosity Function of $z > 4$ Quasars From the Second Palomar Sky Survey”, Kennefick, J.D., Darling, J.K., Djorgovski, S.G., and de Carvalho, R.R. 1996, in S. Viegas, R. Gruenwald, and R. de Carvalho (eds.), *Young Galaxies and QSO Absorption-Line Systems*, ASPCS, 114, 95.

“The Space Density of Quasars at $z > 4$ using their K-band Magnitudes”, Kennefick, J.D., Osmer, P.S., Pahre, M. and Djorgovski, S. 1997, in N.R. Tanvir, A. Aragon-Salamanca and J.V. Wall (eds.), *The Hubble Space Telescope and the High Redshift Universe*, Singapore: World Scientific Publishing Company, p. 401.

“Spectroscopic Observations of Quasar Candidates from a Deep Multicolor Survey”, Osmer, P.S., Kennefick, J.D., Hall, P.B., and Green, R.F. 1997, in N.R. Tanvir, A. Aragon-Salamanca and J.V. Wall (eds.), *The Hubble Space Telescope and the High Redshift Universe*, Singapore: World Scientific Publishing Company, p. 405.

“The BTC40 Survey for High-z Quasars”, Osmer, P.S., Monier, E., Kennefick, J.D., Hall, P., Smith, M. and Green, R. 2001, in *Lighthouses of the Universe: The Most Luminous Celestial Objects and their use for Cosmology 2002*, Proceedings of the MPA/ESO, p. 593.

“Infrared Imaging of SDSS Quasars: Implications for Quasar Evolution”, Kennefick, J. & Bursick, S. 2006, in *Cosmic Frontiers*, ASPCS, in press.

3. Invited Reviews:

“Searches for Protogalaxies and Protoclusters”, Djorgovski, S., Thompson, D., & Smith, J.D. 1993, in B. Rocca-Volmerange *et al.* (eds.), *First Light in the Universe*, p. 67. Gif sur Yvette: Editions Frontieres.

4. Abstracts:

“Quasar Clustering at Large Redshifts?” Smith, J., Djorgovski, S., and Thompson, D. 1990, *Bull. Am. Astron. Soc.*, 22, 1215.

“Foreground Galaxies Superposed on Quasars UM 675 and 0453-423: The Nature of Absorbers at $z \sim 0.75$ ”, Thompson, D., Smith, J., Djorgovski, S., Arnaud, J., and Weir, N. 1991, *Bull. Am. Astron. Soc.*, 23, 1340.

“Searches for Primeval Galaxies and Protoclusters” Thompson, D., Smith, J.D., Djorgovski, S., and Trauger, J. 1992, *Am. Astron. Soc. Meeting*, 180, 48.01.

“An Optical Imaging Search for Small-Separation Gravitational Lenses”, Stamm, J.D., Maxfield, L.M., Djorgovski, S., Thompson, D.J., Smith, J.D., and Meylan, G. 1992, *Am. Astron. Soc. Meeting*, 181, 45.15.

“Searches for Protogalaxies and Protoclusters”, Djorgovski, S., Thompson, D., Smith, J.D., and Trauger, J. 1992, *Am. Astron. Soc. Meeting*, 181, 79.06.

“Deep Near Infrared Observations of the Field of $z = 4.9$ Quasar PC1247+3406 with the Keck Telescope”, Soifer, B.T., Matthews, K., Djorgovski, S., Graham, J.R., Harrison, W., Jernigan, G., Larkin, J., Lin, S., Nelson, J., Neugebauer, G., Smith, G., Smith, J.D., and Ziomkowski, C. 1992, *Am. Astron. Soc. Meeting*, 182, 76.05.

- “Cataloging and Exploration of the Digitized POSS-II”, Djorgovski, S., de Carvalho, R., Schombert, J., Weir, N., Smith, J.D., Barton, E., Fayyad, U., and Roden, J. 1994, Am. Astron. Soc. Meeting, 184, 35.03.
- “Limits on the $z > 4$ Quasar Luminosity Function at Faint Magnitudes”, Smith, J.D., Djorgovski, S., Thompson, D., and Meylan, G. 1994, Am. Astron. Soc. Meeting, 185, 19.03.
- “Deep Galaxy Counts in the K-band with the Keck Telescope”, Djorgovski, S., Soifer, B., Pahre, M., Larkin, J., Smith, J.D., Neugebauer, G., Smail, I., Matthews, K., Hogg, D., Blandford, R., Cohen, J., Harrison, W., and Nelson, J. 1994, Am. Astron. Soc. Meeting, 185, 56.01.
- “Identifications and Spectroscopy of High-Redshift Radio Galaxies from the B3VLA Survey”, Maxfield, L., Djorgovski, S., Thompson, D., Smith, J., Vigotti, M., and Grueff, G. 1994, Am. Astron. Soc. Meeting, 185, 109.01.
- “Discovery of 6 Bright Quasars at $z > 4$ From Digitized POSS-II”, Darling, J., de Carvalho, R.R., Kenefick, J.D., & Djorgovski, S.G. 1995, Am. Astron. Soc. Meeting, 187, 84.17.
- “Quasar Candidates in the Hubble Deep Field”, Conti, A., Kenefick, J.D., Martini, P., & Osmer, P.S. 1996, Am. Astron. Soc. Meeting, 189, 39.01.
- “The Big Faint Quasar Survey”, Hall, P.B., Kenefick, J.D., Osmer, P.S., Smith, M.S., & Green, R.F. 1997, Am. Astron. Soc. Meeting, 191, 130.05.
- “Evidence for a Systematic Gravitational Lensing Magnification of Bright $z > 4$ Quasars”, Banas, K.R., Djorgovski, S.G., Odewahn, S.C., Gal, R.R., Pahre, M.A., Kenefick, J.D., & de Carvalho, R.R. 1997, Am. Astron. Soc. Meeting, 191, 127.04.
- “The BTC40 Survey for $5 < z < 6$ Quasars”, Monier, E., Osmer, P., Kenefick, J., Hall, P., Smith, M., & Green, R. 2001, Am. Astron. Soc. Meeting, 199, 138.10.
- “Variability Trends in QSO’s Over Monthly Time Scales”, Fleming, B.T. & Kenefick, J.D. 2005, Am. Astron. Soc. Meeting, 207, 141.01.
- “Infrared Imaging of SDSS Quasars: Implications For The Quasar K-correction”, Kenefick, J.D. and Bursick, S. 2007, Am. Astron. Soc. Meeting, 210, 112.01
- “Selection and Discovery of Quasars at High Redshift Through Infrared and Optical Imaging”, Bursick, S. and Kenefick, J. 2007, Am. Astron. Soc. Meeting, 210, 02.14
- “Improvement of Moderate Redshift Quasar Surveys Utilizing Infrared and Optical Data”, Stewart, A., Bursick, S., Kenefick, J., Glikman, E., and Djorgovski, S. 2007, Am. Astron. Soc. Meeting, 210, 02.13
- “Quasar Variability and Black Hole Mass with the NFO Webscope”, Walton, J., Fleming, B., Thomas, T., and Kenefick, J. 2007, Am. Astron. Soc. Meeting, 210, 02.01

5. IAU Circulars:

“Supernova 1990ae in Anonymous Galaxy”, Mueller, J., Mendenhall, J., Djorgovski, S., Thompson, D., and Smith, J.D. 1990, IAU Circular #5119.

“Supernova 1993ab in NGC 1164”, Mueller, J., Mendenhall, J., Djorgovski, S., Smith, J., and Thompson, D. 1993, IAU Circular #5871.

“Supernova 1994c in Anonymous Galaxy”, Mueller, J., Djorgovski, S., Thompson, D., and Smith, J. 1994, IAU Circular #5946.

6. Miscellaneous:

“A New Quasar Pair: Q2126-4350 and Q2126-4346”, Hawkins, M.R.S., Hunstead, R.W., Meylan, G., Veron, P., Djorgovski, S., and Smith, J.D. 1993, ESO Messenger #74, p. 27.