Stanislav George Djorgovski

Current positions: Professor of Astronomy
Co-Director, Center for Advanced Computing Research
Option Representative (~ Chief Academic Officer) for Astrophysics
California Institute of Technology

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Education: Ph.D. (Astronomy) University of California, Berkeley, 1985
M.A. (Astronomy) University of California, Berkeley, 1981
B.A. (Astrophysics) University of Belgrade, Yugoslavia, 1979

Honors/Awards: First Prize, Boeing-Griffith Science Writing Contest, 2008
Presidential Young Investigator, 1991 – 1997
NASA Group Achievement Award, 1996
Dudley Observatory Award, 1991
Alfred P. Sloan Foundation Fellow, 1988 – 1991
Harvard Junior Fellow, 1985 – 1987
M. E. Uhl Award for Outstanding Research Contributions, UCB, 1984
Several graduate fellowships, U. C. Berkeley 1981 – 1985

Professional Societies: American Astronomical Society (AAS); American Association for Advancement of Science (AAAS); International Astronomical Union (IAU), including several Commissions and Working Groups; Association for Computing Machinery (ACM).

Professional Interests: Development of e-Science/Cyber-infrastructure, interplay between computationally enabled science and science-driven computing. Virtual Observatory, large digital sky surveys and software systems, exploration of data parameter spaces, advanced data-mining and exploration techniques. Extragalactic astronomy, cosmology, galaxy formation, fundamental properties of galaxies, γ-ray bursts, quasars, radio galaxies, gravitational lenses, globular star clusters, early structure evolution, cosmological tests, the nature of dark energy. Astronomical site testing.

Current Professional Functions:

Co-Director, Center for Advanced Computing Research, Caltech, 2004 – present
CELT/TMT Site Selection Working Group, 1999 - present; Co-chair, 2000 – present
National Virtual Observatory (NVO) Science Steering Committee, 2004 – present

Previous: Keck Observatory Science Steering Committee, 1990 – 1995, 2000 – 2002; Co-Chair, 2003 – 2005. California Extremely Large Telescope (CELT) Steering Committee, 2000 –

2003. NVO Science Definition Team, Chairman, 2001 – 2002. NVO Interim Steering Committee, 1999 - 2001. NASA Michelson Science Center Oversight Committee, 2001 – 2004. Palomar Observatory Council, 1993 – 1995, 1998 – 2002. Keck Obs. Archive Advisory Group, 2003 – 2004. Keck LRIS-B Instrument Science Team, 1994 – 2000. Keck NIRC-2 Instrument Science Team, 1994 – 2000. Keck Obs. Adaptive Optics (AO) Working Group, and AO Science Team 1992 – 1994. Keck Obs. Data Acquisition Working Group, 1991 – 1994. Keck Obs. Low Resolution Imaging Spectrograph (LRIS) Team, 1988 – 1994. NASA/IPAC National Extragalactic Data Base (NED), Advisory Committee, 1989 – 1991. NASA Space Interferometer (SIM) Science Working Group, 1994 – 1995. Faculty Manager, Caltech Astronomy Data Processing Facility, 1989 – 1991. Numerous Departmental, Institute, and professional advisory and administrative functions. Organizing committees and chairmanships for many scientific conferences.

Academic Advising: sponsorship of 15 postdoctoral scholars, including several prize fellows, advising or co-advising of 12 graduate students, non-thesis research advising of about 15 other graduate students and about 50 undergraduate students.

Publications: Complete list is available at http://www.astro.caltech.edu/~george/sgd_pubs.html
As of the early 2008, Djorgovski's publication list includes about 220 papers in refereed journals, about 70 invited reviews, about 150 contributed conference papers, over 160 published abstracts, about 150 circulars, over 30 miscellaneous other publications, editing of 3 conference volumes, and various on-line databases and archives.

Five selected significant publications:

Djorgovski, S., & King, I.R. 1984, "Surface Photometry in Cores of Globular Clusters", *Astrophys. J. Letters* **277**, L49 [discovery of core collapse in globular clusters]

Djorgovski, S., et al. 1985, "Discovery of a Probable Galaxy with a Redshift of 3.218", *Astrophys. J. Letters* **299**, L1 [the first galaxy discovered at $z > 3$]

Djorgovski, S., & Davis, M. 1987, "Fundamental Properties of Elliptical Galaxies", *Astrophys. J.* **313**, 59 [discovery of the fundamental plane correlations]

Metzger, M.R., Djorgovski, S.G., et al. 1997, "Spectroscopic Study of the Optical Counterpart to the γ-Ray Burst of 8 May 1997, *Nature* **387**, 878 [the first GRB redshift]

Djorgovski, S.G., et al. 2001, "On the Threshold of the Reionization Epoch", *Astrophys. J. Letters* **560**, L5 [the first evidence for approach to reionization]

Five selected recent publications:

Djorgovski, S.G., & Williams, R. 2005, "Virtual Observatory: From Concept to Implementation", *A.S.P. Conf. Ser.* **345**, 517

Djorgovski, S.G. 2005, "Virtual Astronomy, Information Technology, and the New Scientific Methodology", *IEEE Proc. of CAMP05: Computer Architectures for Machine Perception*, eds. V. Di Gesu & D. Tegolo, p. 125

Djorgovski, S.G., et al. 2006, "Quasars as Probes of Late Reionization and Early Structure Formation", *New Ast. Rev.,* **50**, 140

Djorgovski, S.G., et al. 2006, "Some Pattern Recognition Challenges in Data-Intensive Astronomy", *Proc. 18th International Conference on Pattern Recognition (ICPR 2006),* Vol. 1, eds. Y.Y. Tang et al., IEEE Press, p. 856

Djorgovski, S.G., & Gurzadyan, V.G. 2007, "Dark Energy From Vacuum Fluctuations", in Proc. Dark Matter 2006 Conf., eds. D. Cline et al., *Nucl. Phys. B Proc. Suppl.*, **173**, 6.