

MILAN BOGOSAVLJEVIĆ

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OBJECTIVE

Challenging position in biomedical image analysis

SUMMARY

Strong background in image processing, optical and infrared imaging and spectroscopy instrumentation (Keck Observatory, Mt. Palomar Observatory). Ph.D thesis work involved development of new algorithms and software for automated data extraction and analysis.

SKILLS

- Advanced programming skills in Interactive Data Language (IDL, 8 yrs.), Image Reduction and Analysis Facility (IRAF, 8 yrs.), basic skills in Matlab, C, Pascal
- Proficient with UNIX/Linux and Mac OS platforms, shell programming
- Experienced in data mining, Monte Carlo simulations and statistical analysis
- Excellent presentation skills : 2 yrs. experience as Teaching Assistant and 10 yrs. of activity in public outreach

EDUCATION

California Institute of Technology **2005 - 2009**
Ph.D., Department of Astronomy *(expected)*

California Institute of Technology **2001 - 2003***
M.S., Department of Astronomy

University of Belgrade, Serbia **2001**
B.S., Department of Astrophysics

* on leave of absence from Caltech, mandatory military duty, Army of the Republic of Serbia, 2004

WORK EXPERIENCE

Graduate Research Fellow **2006 - present**

Department of Astronomy, California Institute of Technology, Pasadena, CA

Research Advisor : Prof. Charles C. Steidel

- Developed data extraction techniques for very low signal optical spectroscopy
- Optical (CCD) and Near-IR (HgCdTe) detector image processing and analysis

Graduate Research Fellow **2001 - 2003, 2005**

Department of Astronomy, California Institute of Technology, Pasadena, CA

Research Advisor : Prof. George S. Djorgovski

- Developed software pipeline for Palomar-QUEST optical imaging survey
- Developed software for creating "The Big Picture", the largest astronomical image to date, permanent exhibit at Griffith Observatory, Los Angeles

Teaching Assistant **2002, 2007**

Department of Astronomy, California Institute of Technology, Pasadena, CA

- Supervised students in Optical Instrumentation Lab, with applications of CodeV optical design software

Summer Research Fellow **2000**

Space Telescope Science Institute, Baltimore, MD

- Analyzed mid-infrared (8-20 μm) imaging data from UKIRT Observatory

PROFESSIONAL DEVELOPMENT

Magnetic Resonance Imaging (course BE248, 2008), Caltech Brain Imaging Center

Science with the Virtual Observatory, NVO Summer School (2006) on databases, data query and access tools (MySQL, Web servers)

AWARDS

E.S. Rumsey Fellowship **2001**

California Institute of Technology

Top Graduating Student, Award "Zaharije Brkić" **2001**

Department of Astrophysics, University of Belgrade

Exceptional Academic Performance Award **2000**

Embassy of Kingdom of Norway, Serbia

PROFESSIONAL AFFILIATIONS

American Astronomical Society (2001-present)

PUBLICATIONS

Discovery of Two Spectroscopically Peculiar, Low-Luminosity Quasars at $z \sim 4$,
Glikman E., Djorgovski S. G., Stern D., Bogosavljević M., Mahabal A., 2007, The
Astrophysical Journal, Volume 663, Issue 2, pp. L73-L76.

Quasars as probes of late reionization and early structure formation,
Djorgovski S. G., Bogosavljevic M., Mahabal A., 2006, New Astronomy Reviews,
Volume 50, Issue 1-3, p. 140-145

***Discovery of an Optically Faint Quasar at $z = 5.70$ and Implications for the Faint
End of the Quasar Luminosity Function,*** Mahabal A., Stern D., Bogosavljević M.,
Djorgovski S. G., Thompson D., 2005, The Astrophysical Journal, Volume 634, Issue
1, pp. L9-L11

***A Limit on the Number of Isolated Neutron Stars Detected in the ROSAT Bright
Source Catalogue,*** Rutledge R. E., Fox D.W., Bogosavljevic M., Mahabal A., 2003,
The Astrophysical Journal, Volume 598, Issue 1, pp. 458-473.

MANUSCRIPTS IN PREPARATION

On the Nature of Lyman Continuum Emitting Galaxies at $Z \sim 3$,
Bogosavljević M., Steidel C. C., Klein C., 2009

Faint End of the Quasar Luminosity Function at $Z \sim 4$,
Bogosavljević M., Glikman E., Djorgovski S., Mahabal A., Stern D., 2009

Discovery of Lyman Alpha Clouds in the field of QSO HS1700+64
Bogosavljević M., Steidel C. C., Klein C., 2009

SELECTED ORAL PRESENTATIONS

Ionizing Radiation from Galaxies and the IGM at $Z \sim 2-3$,
Bogosavljevic, M., Steidel C. C., 2009, American Astronomical Society, AAS
Meeting #213, #362.05

SELECTED CONFERENCE POSTERS

A Fast Image Cleaning and Coadding Pipeline for the Palomar-QUEST Survey,
Mahabal, A.; Bogosavljevic, M.; Donalek, C.; Djorgovski, S. G.; Williams, R.;
Graham, M. J.; Drake, A.; Brunett, S.; Lindheim, J.; Baltay, C., 2005, American
Astronomical Society Meeting 207, #29.03; Bulletin of the American Astronomical
Society, Vol. 37, p.1211

Observed Properties of Continuum Slopes and LyA Line Equivalent Widths for High Redshift Quasars,

Bogosavljevic, M.; Djorgovski, S. G.; Mahabal, A.; Thompson, D.; Castro, S., 2005, American Astronomical Society Meeting 207, #18.15; Bulletin of the American Astronomical Society, Vol. 37, p.1186

The Palomar-Quest High-Redshift Quasar Survey,

Djorgovski, S. G.; Mahabal, A.; Bogosavljevic, M.; Graham, M.; Williams, R.; Baltay, C.; Rabinowitz, D.; Bauer, A.; Andrews, P.; Morgan, N., 2003, American Astronomical Society Meeting 203, #69.04; Bulletin of the American Astronomical Society, Vol. 35, p.1315

Data Processing Pipeline and Data Archiving for the Palomar-QUEST Survey,

Bauer, A.; Andrews, P.; Baltay, C.; Ellman, N.; Lauer, R.; Morgan, N.; Rabinowitz, D.; Snyder, J.; Bogosavljevic, M.; Djorgovski, G., 2003, American Astronomical Society Meeting 203, #38.13; Bulletin of the American Astronomical Society, Vol. 35, p.1262

Approaching the Reionization: Cosmic Variance in the Transmission of the IGM at $Z \sim 5 - 6$,

Djorgovski, S. G.; Bogosavljevic, M.; Mahabal, A. A.; Lopes, P.; Castro, S. M., 2002, American Astronomical Society, 201st AAS Meeting, #140.06; Bulletin of the American Astronomical Society, Vol. 34, p.1325

A Search for the Barkana-Loeb Effect in the Spectra of High-Redshift Quasars: Probing the Quasar Formation Era?

Bogosavljevic, M.; Djorgovski, S. G.; Castro, S. M.; Mahabal, A. A.; Lopes, P., 2002, American Astronomical Society, 201st AAS Meeting, #79.02; Bulletin of the American Astronomical Society, Vol. 34, p.1234

ADDITIONAL INFORMATION

Founder and Vice President

1996 - present

Amateur Astronomical Society "Alfa", Serbia, active with more than 100 members. Presented numerous popular astronomy lectures, TV and Radio show appearances.