

# SDSS forced photometry new quasars catalog

Krzysztof Suberlak,<sup>1</sup><sup>★</sup> Željko Ivezić,<sup>1</sup> Yusra AlSayyad,<sup>1</sup>

<sup>1</sup>*Department of Astronomy, University of Washington, Seattle, WA, United States*

Accepted XXX. Received YYY; in original form ZZZ

## ABSTRACT

### 1 INTRODUCTION

### 2 DATA ANALYSIS

We use data from all SDSS runs up to an including run 7202 (Data Release 7), including all 6 SDSS camera columns. The data were coadded, and all objects detected in the i-band coadds were assigned a deepSourceId (== objectId). For star-galaxy separation, the entire clump was considered as one parent source (with single ParentSourceId). For an object which is a parent (eg. a galaxy), ParentSourceId is null.

Forced photometry was performed in u,g,r,i,z on all sources in locations specified by i-band coadds. [difference imaging ?] Colors can be defined in two ways: biased and unbiased. Because coadds deepen the detection threshold, objects that were detected in i-band coadds might not be detectable in all individual epochs. Thus the median of coadd photometry (only when an object was detected in individual epochs) may be biased (especially for faint sources) towards higher brightness. On the other hand, the median of catalog forced photometry would be substantially lower, even below the detection threshold in an individual epoch. Therefore, given these caveats, for each object we employ the median of catalog forced photometry to provide the average magnitude in a given filter, used to calculate the color information.

Part of the initial pre-processing was correction for galactic extinction, given the [cite SOURCE] values of E(B-V) calculated for the direction of each source.

### 3 RESULTS

### 4 CONCLUSIONS

### ACKNOWLEDGEMENTS

Funding for the SDSS and SDSS-II has been provided by the Alfred P. Sloan Foundation, the Participating Institutions, the National Science Foundation, the U.S. Department of Energy, the National Aeronautics and Space Administration, the Japanese Monbukagakusho, the Max Planck Society, and the Higher Education Funding Council for England. The SDSS Web Site is <http://www.sdss.org/>.

The SDSS is managed by the Astrophysical Research Consortium for the Participating Institutions. The Participating Institutions are the American Museum of Natural History, Astrophysical Institute Potsdam, University of

Basel, University of Cambridge, Case Western Reserve University, University of Chicago, Drexel University, Fermilab, the Institute for Advanced Study, the Japan Participation Group, Johns Hopkins University, the Joint Institute for Nuclear Astrophysics, the Kavli Institute for Particle Astrophysics and Cosmology, the Korean Scientist Group, the Chinese Academy of Sciences (LAMOST), Los Alamos National Laboratory, the Max-Planck-Institute for Astronomy (MPIA), the Max-Planck-Institute for Astrophysics (MPA), New Mexico State University, Ohio State University, University of Pittsburgh, University of Portsmouth, Princeton University, the United States Naval Observatory, and the University of Washington.

This paper has been typeset from a T<sub>E</sub>X/L<sup>A</sup>T<sub>E</sub>X file prepared by the author.