Seminarium Studium Doktoranckiego NCBJ   
Poniedziałek, 18 marca, godzina 9:00   
Sala 404 w NCBJ,  Pasteura 7

**Speaker**: [Szymon Nakoneczny](http://grad.ncbj.gov.pl/current-students/szymon-nakoneczny/)

**Title: Catalog of quasars from the Kilo-Degree Survey Data Release 3**

**Abstract:** Broad spectroscopic lines, large redshift range and variety of properties make quasar detection in photometric surveys a particularly difficult task. I will present a quasar detection method based on photometric ugri data in Kilo-Degree Survey (KIDS) – an imaging deep and wide field survey covering 447 sq. deg. on the sky. The KiDS third data release contains 49 millions of sources among which, however, a vast majority does not have any spectroscopically confirmed identification. We successfully trained a Random Forest classifier based on the KIDS data and a set of known quasars identified by the SDSS spectroscopic survey. The presented catalog consists of 190,000 quasar candidates, and its training purity equals 91%. Additional validation of the catalog was made by the means of comparison with GAIA second data release, other already existing quasar catalogs and WISE photometric data.