Deep intermediate polar survey on (20-40) keV INTEGRAL/IBIS mosaics

Matus Kocka Massaryk University

Intermediate polars (IPs) represent only ~2% of the catalogued cataclysmic variables (CVs), but they dominate the group of CVs seen by INTEGRAL/IBIS. Detection of CVs by INTEGRAL/IBIS typically requires about 200 ksec or more, but some IPs remained invisible even after 300 ksec. This fact can be, at least in some cases, related to activity state of the sources. We present the results of deep IPs survey - looking for all known IPs on (20-40) keV INTEGRAL/IBIS mosaics.

Optical identification of X-ray and gamma sources

Goal of our thesis is to find optical counterparts of selected X-ray and gamma sources measured by INTEGRAL and Swift space missions. Our work also provides basic measurement of short-term variations of sources in optical band, as well as its colour curve and light curve analysis.