Invited Lecture

1-m SCHMIDT TELESCOPE RECONSTRUCTION: SCIENTIFIC GOALS AND FIRST RESULTS

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During several years we worked on the reconstruction of 1-m Schmidt Telescope of the Byurakan Observatory (Armenia). This well-known Telescope (Markarian Survey was developed on it) up today remains one of the largest Schmidt cameras in the world. A new control system and modern driving motors were installed on the Telescope. A CCD detector (4k x 4k Apogee 16M CCD with liquid cooling system, RON ~ 11.1 e) and a filter wheel were installed in the Telescope focus. As a result we obtained near 1 sq. degree field of view with 0.868 arcsec/pixel image scale. The filter set contains 20 medium band (FWHM = 250 Å, permanently cover 4000 - 9000 Å) and 5 broad band (u,g,r,i,z SDSS) filters. First light on renewed Telescope was obtained in October 2015, since this time we begun several observational programs on the Telescope. In report I will describe current status and some results obtained on 1-m Schmidt Telescope in deep broad band photometry of the outer parts of the galaxies, search for the AGNs with low selection effects with medium band filters to AB=23m.