

Poster

OBSERVATIONS OF NGC 3077 GALAXY IN NARROW BAND [SII] AND H α FILTERS

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We present preliminary results of the observations made with 2m RCC telescope at NAO Rozhen, using narrow band [S II] and H α filters. The main target was to identify supernova remnant and HII region candidates in interaction regions in M81 galaxy group, particularly in the NGC 3077 galaxy. Tidal interaction between galaxies in this group, as well as large HI structure in NGC 3077, are supposed to led to enhanced star formation which will result in a number of HII regions and supernovae, whose remnants we have tried to detect.

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MODELING OF THE H α SPECTRAL LINE EMISSION REGION IN NGC4151

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We analyzed a number of the H α spectral line profiles of NGC 415 observed in a period of 11 years (from 1996 to 2006). Assuming that the broad component of emission lines are emitted from the broad line region (BLR), which may be very complex, we applied the two-component model (the broad component of an emission line is constructed from the disk emission + emission of the surrounding region with isotropic velocities). We varied the parameter values for the model and compared simulated profiles to observed spectra, with the aim to model variations of the NGC 4151 BLR emission, which affect the H α line profile variations.