Poster

Study of PN population in nearby dwarf galaxy NGC3077

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Planetary nebulae (PNe) in nearby galaxies are drawing particular attention due to their role as metallicity indicators, which is important in order to investigate chemical composition and expand the understanding of the star formation history. Also, PNe can be used as a tracker of the internal kinematics of a galaxy. Last but not least, the PNe luminosity function is a well-known distance indicator. NGC3077 is an interesting nearby local dwarf galaxy in M81 group, but no PNe have been mapped in this galaxy yet. In order to identify planetary nebula candidates in this galaxy, we used observations with a tunable-filter imager at the 2.5-m SAI MSU telescope in various emission lines. Compact objects were selected, their ionisation state was analysed via line-ratio diagrams. Several PN candidates were confirmed by spectroscopic observations at the 6-m SAO RAS telescope.