

Seminarium Astrofizyczne
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**Molecular emission around low-mass protostars
in the Serpens Main with IRAM 30m**

A new-born protostar forms in dense cores deep inside molecular cloud. Due to high extinction in the optical range, observations at long-wavelengths are needed. In particular, submillimeter spectra include rotational lines of key molecules which are useful probes of physics and chemistry around low-mass protostars. Here, we analyse molecular emission from the Serpens Main star forming regions using IRAM 30 m single dish telescope. HCN, CN, and CS emission is modelled using radiative transfer code RADEX to determine the gas physical conditions and molecular abundances. The presence of UV radiation in these regions is identified and compared to models of dense envelopes irradiated by UV photons. Thus, we gain new understandings of chemical and physical processes around low-mass protostars.

Serdecznie zapraszam,
Agnieszka Majczyna