Seminarium Astrofizyczne

wtorek 12.03.2019 godz. 12:30 ul. Pasteura 7, sala 404

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Star Formation around HII regions: From Herschel HOBYS to ALMA

Feedback from high-mass stars such as stellar winds, radiation pressure, photoionization pressure and supernovae explosions can strongly modify the parental cloud in which they are born. As a result, the next generation of stars in the same cloud is affected and can present different physical properties. Just after their formation, the ionizing photons from high-mass stars create an HII region whose expansion compresses the neutral material and form a layer of dust and gas where star formation is seen. Statistical studies showed an overdensity of massive young objects towards these regions compared to places where no feedback is at play. I will show the results of some of these regions (RCW120, RCW79, NGC6334, NGC6357) observed in the Herschel Observations of OB Young Stars (HOBYS) project and the follow-up studies made on the massive objects founds towards the edge of these regions using ALMA. These follow-up studies allow us to observe directly if the massive cores found towards HII regions are a good place for the formation of massive stars.

Serdecznie zapraszam, Agnieszka Majczyna