Colloquium

SFB 956

Conditions and Impact of Star Formation

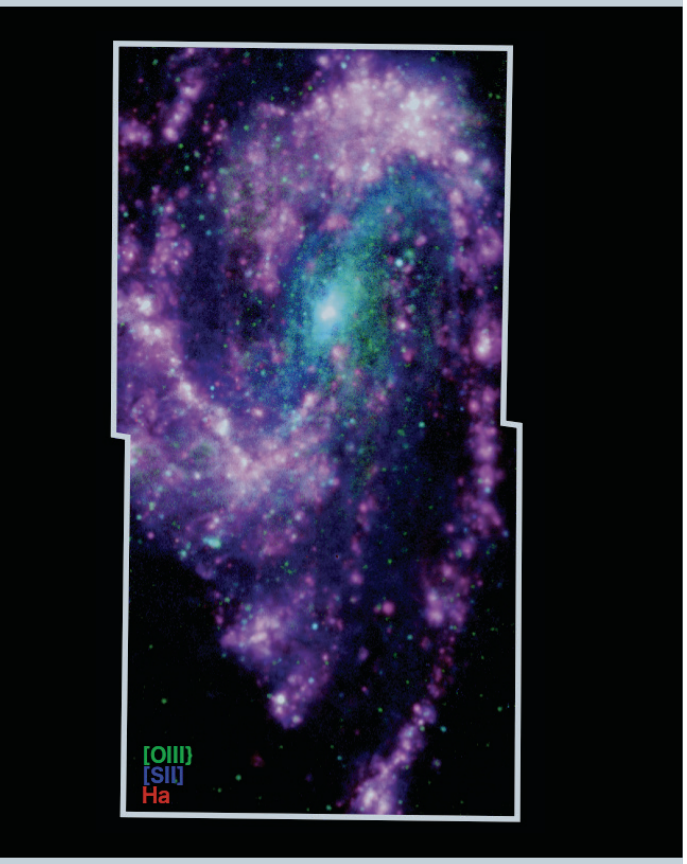
16 December 2019

Monday 3:00 pm

MPIfR

Auditorium 0.02

Auf dem Hügel 71 | 53121 Bonn



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Mapping the Ionized ISM in Nearby Galaxies

The ionized interstellar medium (ISM) provides crucial insights into understanding baryon cycling within disk galaxies and tracing radiative and mechanical feedback from young massive stars. With new VLT/MUSE optical integral field spectroscopy, the PHANGS team now has a wealth of emission line maps that trace different ionization sources and physical conditions across nearby disk galaxies at the 50pc spatial scales needed to isolate individual ionized regions (e.g. HII regions, supernova remnants, planetary nebulae) from surrounding diffuse ionized gas. I will present our most recent results connecting the molecular gas with observed sites of massive star formation, and measuring the gas phase oxygen abundances across thousands of HII regions. Within the context of the large scale galactic environment, these studies have implications for our understanding of how spiral structure acts to organize and mix the ISM, and regulate star formation.