



Habilitandenkolloquium

Dienstag, 10. Mai 2016, 15:15 Uhr

Dr. Jakob Walcher

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*“Making heavy elements in the process
of galaxy evolution“*

The nucleosynthesis of elements heavier than Beryllium in the Universe is governed by two different kinds of physical processes occurring at vastly different scales: 1) The nuclear fusion processes as such occur within stars and supernovae and follow diverse possible chain reactions, depending on local temperatures and pressures. 2) In this talk I will review our understanding of how the abundances of the different chemical elements evolve with time on galactic scales. This process, called chemical evolution, is dominated by the matter cycle between the interstellar medium in galaxies and the stars themselves. It is modulated by merging of galaxies, matter accretion onto and matter ejection from galaxies as well as matter redistribution within galaxies. I will also show a few recent observational results underlining how improving our understanding of chemical evolution helps understand galaxy evolution in general.

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