

Seminar

by

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Monday, 08. April 2019, at 15:00 Uhr in HS

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***across Scales:
From Galaxies into the Cosmic Web with the Magneticum
Simulations***

The Magneticum simulations are a large set of cosmological, hydrodynamical simulations covering up to Gpc^3 volumes. It follows the formation of cosmological structures in so far unaccomplished detail and allows to study halos across a wide range of mass and environments, from massive galaxy cluster down to normal galaxies. It includes a detailed treatment of the chemo-energetic feedback from the stellar component and its evolution as well as feedback from the evolution of super massive black holes. The largest of the simulations thereby follows a record number of 2×10^{13} particles and was performed using the complete Phase II of SuperMUC at LRZ. Following all the relevant physical processes for galaxy formation it allows a self consistent comparison to observations at multiple wavelength and helps to decipher the processes which are shaping the visible structures in the universe.