

Physikalisches Kolloquium



Thursday, 29.06.2023, 16:15, HS 100

Reception with coffee & cookies 16:00

(For university staff: please bring your own cup for sustainability reasons)

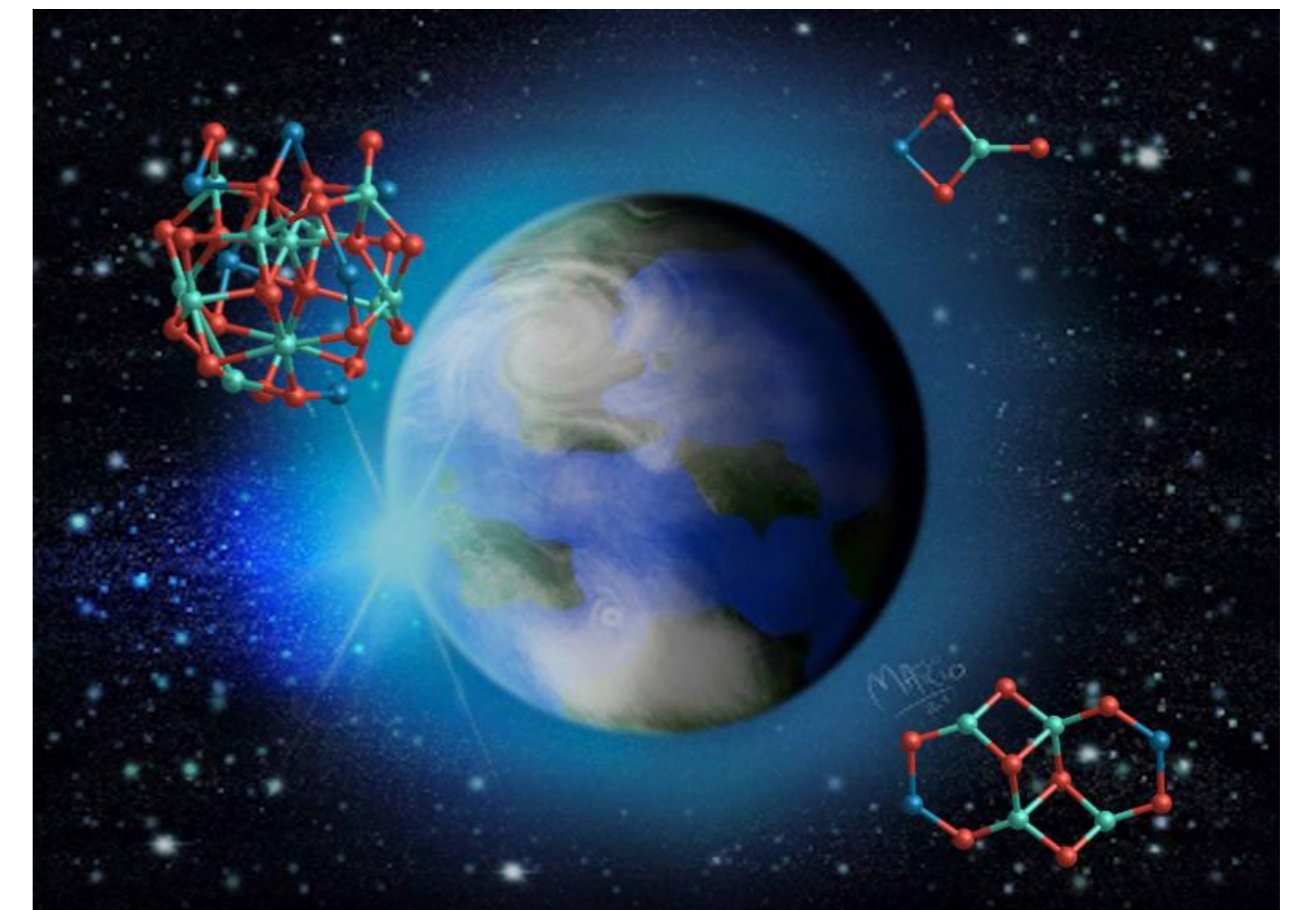
Dr. David Gobrecht, University of Gothenburg, Sweden:

On the formation of stardust grains

Abstract

Stellar dust grains are formed in substantial amounts in the atmospheres of comparatively cool evolved stars. The first steps of their formation (i.e. nucleation) proceed via molecular precursors and nano-sized clusters that eventually compose the stardust grains. However, the nucleation of these condensates represents a major challenge in current research. The nature of the dust-forming molecules and clusters depends on the chemical composition of the gas and the ambient conditions that are radically different from Earth.

In this talk I will present the progress and challenges in modeling the formation and growth of astrophysical dust particles with a particular emphasis on metal oxides.



All of you interested in physics are cordially invited!