



Münchner Physik- Kolloquium

sommer
2017

Watching structure formation in real time

Prof. Dr. Frank Schreiber, *Institut für Angewandte Physik, Universität Tübingen*

Monday, 29 May 2017, 17:15 h

Hörsaal 2, Physik-Department der TUM, Garching

Structure formation processes, including crystallization and growth as the most obvious examples, are ubiquitous in nature and technology. Importantly, for their understanding it is not sufficient to study the minimum of the free energy, but non-equilibrium issues need to be considered. This is a challenge for both theory and experiment, in particular for many modern materials, which are rather complex and frequently multi-component forms of condensed matter.

After a general introduction of the basic concepts, we present examples related to in situ and real time scattering experiments on molecular systems on the formation of transient structures, the kinetics of phase transformations, and the stabilization of non-equilibrium structures. We indicate possible extensions of simple theories for the understanding of structure formation.

Finally, we discuss implications for applied science and process monitoring, as well as for the general understanding of non-equilibrium states of matter.

Student event: Meet the speaker

We invite you to a **student-only** discussion-round with Prof. Dr. Frank Schreiber before his Munich Physics Colloquium talk.

Be curious and feel free to ask any question.

Monday, 29 May 2017, 16:00 h

Seminar room PH 3076 (upper floor), Physik-Department der TUM, Garching

