

**In the Transregio SFB TR 6 at the University of Konstanz
and the Helmholtz-University Young Investigator Group "Transport Processes in Melts
under External Fields"**

at the German Aerospace Center (Cologne), and the University of Konstanz

two job-openings as

PhD students in Theoretical Physics

are to be filled in the groups of Prof. Fuchs and Dr. Thomas Voigtmann, Konstanz.

We are looking for motivated candidates with interest in novel areas of nonequilibrium Statistical Mechanics, specifically the nonlinear rheology of colloidal suspensions.

Our groups aim to contribute to the development of a first-principles approach for the dynamics of dense dispersions in external fields. Specifically the effect of shear and external forces on the internal dynamics is studied, both numerically and analytically. Open questions concern the nature of the transient dynamics far from equilibrium, and the existence and universal aspects of non-equilibrium transitions from fluid to solid like behaviour. Results for the non-linear flow properties shall be obtained, which will clarify rheological properties of complex fluids that are studied in model systems, and are also of technological interest (e.g. dispersion paints).

Successful candidates will hold a Masters/Diploma degree in physics or a related science, and have first experience with computer simulation and/or numerical methods in physics and excellent knowledge in statistical physics. They should be highly motivated and are expected to participate in teaching undergraduate students to the usual extent.

Konstanz is a historical town in the very South of Germany situated at Lake Constance offering great cultural and outdoors possibilities.

Women and minorities are particularly encouraged to apply. The University of Konstanz is an equal opportunity employer. Please send your application to one of the addresses below (mail or email). Additional information can be obtained from us upon request or from the groups' web pages.

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