**Doctoral Position in Theoretical Physics – Soft Condensed Matter**

*(part-time 75%, E 13 TV-L)*

**Kennziffer 2019/323. The start date is as soon as possible or by agreement.** The contract is at first limited to one year with the possibility of further extension depending on the success of the thesis.

The University of Konstanz has been successful in the German Excellence Initiative and Excellence Strategy since 2007.

We are looking for motivated candidates with interest in novel areas of Nonequilibrium Statistical Mechanics, specifically the theory of complex fluids driven far from equilibrium.

We develop the theoretical foundations for active microrheology. This is a novel technique combining microscopy, particle tracking and optical tweezing of designated colloidal probe particles for the investigation of local materials properties in complex materials such as dispersions, gels and biological tissues. In the project a fundamental theoretical approach based on Statistical Mechanics far from equilibrium shall be developed and partly analytically and partly numerically evaluated to describe recent discoveries in collaborating experimental groups. Besides performing theoretical development and analysis, the PhD candidate is expected to work together with the experimental groups in interpreting the observations and analysing the data.

**See the webpage:** [https://cms.uni-konstanz.de/physik/fuchs/](https://cms.uni-konstanz.de/physik/fuchs/)

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**Your responsibilities**
- Develop and evaluate fundamental theory of active motion
- Cooperate with experimental groups
- Teaching undergraduate students to the usual extent

**Your Competencies**
- Masters/ Diploma degree in physics or a related science
- First experience with numerical methods in physics and excellent knowledge in statistical physics

**We Offer**
- Exciting research environment
- Good development opportunities, extensive training and an attractive remuneration package.
- International collaborations with stay abroad

Questions can be directed to Prof. Dr. Matthias Fuchs via e-mail: matthias.fuchs@uni-konstanz.de by phone: (+ 49 (0)7531/88–4678).

We look forward to receiving your application with the usual documents until **January 31, 2020** via our **Online application portal**.

Persons with disabilities are explicitly encouraged to apply. They will be given preference if appropriately qualified (contact + 49 7531 88–4016).

The University of Konstanz is committed to ensuring an environment that provides equal opportunities and promotes diversity as well as a good balance between university and family life. As an equal opportunity employer, we strive to increase the number of women working in research and teaching. We also support working couples through our dual career programme ([https://www.uni-konstanz.de/en/equalopportunities/family/dual-career/](https://www.uni-konstanz.de/en/equalopportunities/family/dual-career/)).