Postdoc position in modelling of chemotactic and phoretic microswimmers

A two-year postdoctoral position with starting date of January 2020 or as soon as possible thereafter is available to collaborate with the theoretical soft-matter groups of Dr. Sara Jabbari-Farouji at the University of Amsterdam and Professor René van Roij at Utrecht University.

We welcome applications from postdoctoral candidates interested in a combined theoretical and numerical description of chemotactic and phoretic swimmers. In this research project, we will work towards developing a dynamic density functional formulation for a description of the intricate dynamics of crowded (dense) active matter. We will focus particularly on structure formation and active transport of phoretic and chemotactic microswimmers that are driven by self-generated as well as externally imposed gradients of chemicals in their environment.

You will be hosted at the Institute of Theoretical Physics of the University of Amsterdam but will visit the Institute for Theoretical Physics in Utrecht on a regular basis to interact with the (theoretical) soft-matter community at Utrecht University. The position provides ample opportunities for interactions with local, national, and international collaborators. The salary, depending on relevant experience before the beginning of the employment contract, will be €2,709 to €4,274 (scale 10) gross per month, based on fulltime (38 hours a week). These amounts are exclusive 8% holiday allowance and 8,3% end-of-year bonus. A favorable tax agreement, the ‘30% ruling’, may apply to non-Dutch applicants.

Applicants should have completed a PhD in (theoretical) physics, chemical physics, applied mathematics, or a closely related field. We are looking for a candidate with a strong background in soft-matter theory and non-equilibrium statistical mechanics. Previous experience with cross-disciplinary projects involving chemical physics and hydrodynamics is desirable. For more information and informal inquiries, please contact the S. Jabbari-Farouji (s.jabbarifarouji@uva.nl) and R. van Roij (r.vanroij@uu.nl) directly. You can find further details about this position and application procedure at the following link: https://iop.uva.nl/shared/uva/en/vacancies/2019/11/19-789-theoretical-postdoctoral-position-in-chemotactic-and-phoretic-active-matter.html?origin=2diawi1xTyuMn3MyWKcHow.