Stanford

Kasper van der Vaart

Postdoctoral Research Fellow, Civil and Environmental Engineering

Bio

BIO

Kasper van der Vaart studied physics and astronomy at the University of Amsterdam, where his bachelor thesis, supervised by Tom Gregorkiewicz and Wieteke de Boer, was on the topic of photoluminescence of silicon nano-crystals. Afterwards he went to the University of Utrecht to obtain a M.Sc. in Nano-materials, focussing mostly on nanophotonics and soft matter. Following a project back in Amsterdam on the rheology of colloidal glasses (supervised by Peter Schall) he sought to apply his new found knowledge on rheology to a more everyday material. Thus he ventured in to the field of food technology and performed his master project on chocolate flow behaviour at the laboratory of Food Technology and Engineering at Ghent University, under supervision of Koen Dewettinck. Wanting to visualize the actual particle motion in a soft material, Kasper went to the EPFL in Switzerland. There he investigated particle-size segregation in granular avalanches through both experiments and simulations, in the lab of Christophe Ancey. During this work Kasper collaborated closely with Nico Gray and Anthony Thornton. His current work at Stanford focusses on the collective behavior and emergent properties of midge swarms, in order to determine what constitutes collective behavior, how it can be quantified and how we can compare different collectively behaving organisms.

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Ecole Polytechnique Federale Lausanne (2016)

STANFORD ADVISORS

- Nicholas Ouellette, Postdoctoral Faculty Sponsor

LINKS

- Ouellette Lab: http://web.stanford.edu/~nto/index.shtml