Joint Workshop on
Soft Matter & Self-Assembly

4TU.High-Tech Materials, M2i & Zernike Institute for Advanced Materials

De Witte Vosch (Utrecht), Thursday 19 January 2023

Programme

Keynote lecture by

Jasper van der Gucht (WUR)

When gels become unstable: yielding and syneresis in colloidal networks

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Aim of the workshop

Soft matter surrounds us in our daily lives, and are omni-present i.e., foods, polymers, plants, humans. Often these materials are formed through a complex sequence of self-assembly processes. In the current workshop we will not only highlight the importance of soft matter materials in addressing societal challenges, we will elaborate on their underlying mechanism through a dedicated line-up of researchers.

The aim of this workshop is to bring together scientists with interest and expertise in soft matter including its assembly, to exchange knowledge, and explore ways of collaboration.

Emulsions, Polymeric films, Self-Assembly
Fundamental aspects versus Applications

Presentations (20 min.) and plenary discussions

https://www.4tu.nl/htm

university of groningen / faculty of science and engineering / zernike institute for advanced materials

Programme

9.30	**Welcome and coffee**
10.00 - 10.10	Introduction **Arjan Mol** (TU Delft, scientific director 4TU.HTM) and **Karin Schroën** (WUR) *chairs & moderators*
10.10 – 12.00	**Polymers** **Wiebe de Vos (UT)** *Asymmetric polyelectrolyte multilayers for clean water production* **Siddharth Deshpande (WUR)** *Crystal-Gazing: Biosensing using colourful liquid crystals* **Armin Amirsadeghi (RUG)** *Biopolymer complex coacervate 3D printable bioink* **Georgy A. Filonenko (TUD)** *Molecular mechanochemistry for optical imaging of internal stresses in polymer films* *Plenary discussion: fundamental aspects vs. applications*
12.00 – 13.00	**Lunch**
13.00 – 14.45 (45 min.)	**Emulsions** **Jasper van der Gucht (WUR) - Keynote** *When gels become unstable: yielding and syneresis in colloidal networks* **Emma Hinderink (TUD)** *Dynamic processes occurring during emulsion production: Insights from a microfluidic approach* **Julien Es Sayed (RUG)** *Smart Emulsions using Responsive Pickering Emulsifiers* *Plenary discussion: fundamental aspects vs. applications*
14.45 – 15.00	**Break**
15.00 – 16.15	**Self-Assembly** **Janne-Mieke Meijer (TU/e)** *Complex colloidal self-assembly: towards designer materials* **Julieta Paez (UT)** *Biomedical applications of bioinspired dynamic hydrogels* **Atze Jan van der Goot (WUR)** *Structuring of Food Products. What can we learn from soft matter physics?* *Plenary discussion: fundamental aspects vs. applications*
16.15 – 17.30	**Closure, drinks & bites**