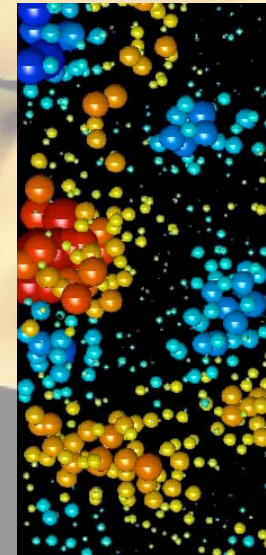
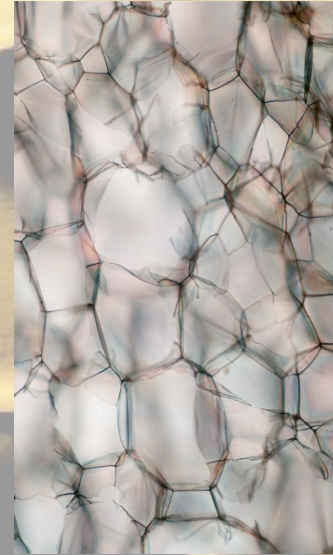
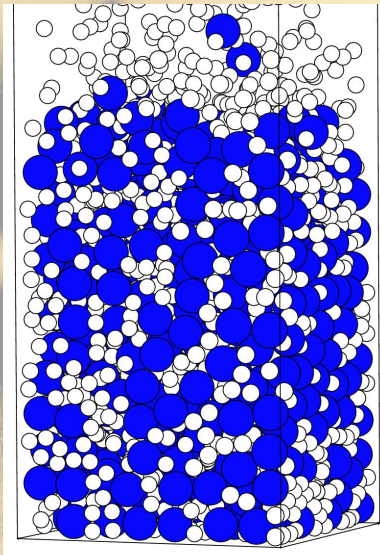
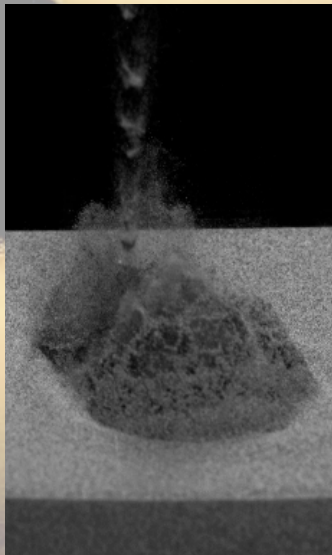


# JMBC Workshop

## “Statics and dynamics of soft and granular materials”

**Drienerburcht, University of Twente, March 21 - March 24, 2016**

*Speakers:* Günter Auernhammer - Dirk van der Ende - Nico Gray - Daniela Kraft - Detlef Lohse - Stefan Luding - Martin van der Hoef - Vanessa Magnanimo - Devaraj van der Meer - Peter Schall



Many materials, often grouped together using the term ‘soft matter’, share common characteristics and behavior: For example, the materials consist of macroscopic particles, larger than the molecules that build up the world around us. They jam when flow is about to stop, and unjam just before flow starts. The static (‘solid’) situation is often characterized by a high degree of disorder, inhomogeneity and anisotropy, while the dynamic (‘fluid’) situation is frequently dominated by dissipative interaction forces

leading to a dissipation time scale that interacts with other time scales in the system. Finally, there is the role of the interstitial fluid that resides between the particles and may mediate thermal (Brownian) motion, in the case of colloids, or hydrodynamic interactions (drag) in the case of macroscopic grains. This course, aimed at graduate students, will provide an introduction to this type of materials and discuss many of the phenomena mentioned above both as an overview and in the context of actual research.

<b>PROGRAM JMBC Workshop "Statics and dynamics of soft and granular materials"</b> <b>(Drienerburgh, University of Twente, March 21 - March 24, 2016)</b>					
	<b>MONDAY</b> <b>March 21, 2016</b>	<b>TUESDAY</b> <b>March 22, 2016</b>	<b>WEDNESDAY</b> <b>March 23, 2016</b>	<b>THURSDAY</b> <b>March 24, 2016</b>	<b>FRIDAY</b> <b>March 25, 2016</b>
09:00 - 10:45		<b>Granular materials: from physics to engineering applications</b> <b>Vanessa Magnanimo)</b>	<b>Simulation of granular two-phase flows</b> <b>(Martin v/d Hoef)</b>	<b>Impact on granular solids</b> <b>(Detlef Lohse)</b>	
10:45 - 11:15	<b>Welcome</b>	coffee & tea	coffee & tea	coffee & tea	
11:15 - 12:15	<b>Introduction</b> <b>(Devaraj v/d Meer)</b>	<b>Granular matter and interstitial fluids</b> <b>(Devaraj v/d Meer)</b>	<b>Colloidal self-assembly</b> <b>(Daniela Kraft)</b>	<b>Student talks</b>	
12:15 - 13:30	lunch	lunch	lunch	lunch	
13:30 - 15:15	<b>Granular Avalanches</b> <b>(Nico Gray)</b>	<b>Nonequilibrium transitions in flowing colloidal glasses and grains</b> <b>(Peter Schall)</b>	<b>Introduction to Rheology: Does soft matter have a memory?</b> <b>(Dirk v/d Ende)</b>	<b>Experiments in two and three dimensions</b> <b>(Günter Auernhammer)</b>	
15:15 - 15:45	coffee & tea	coffee & tea	coffee & tea		
15:45 - 17:30	<b>Particle size segregation in granular free surface flows</b> <b>(Nico Gray)</b>	<b>Modeling jamming and unjamming in soft and granular matter</b> <b>(Stefan Luding)</b>	<b>Dispersion Rheology: How flow determines the structure of a suspension and how structure determines flow</b> <b>(Dirk v/d Ende)</b>		
18:30 - 21:00			<b>Workshop dinner</b>		

Registration: <http://www.jmburgerscentrum.nl/formulier/6/JMBC-PhD-Course.htm>

Tuition fee: University PhDs/postdocs/staff Netherlands: €250; idem other countries: €400; others: €1,000

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