

FINAL PROGRAMME

**DAY 1 – Wednesday, April 6, 2011**

09:00 – 09:30

Registration

09:30 – 10:00

Welcome

SESSION 1		FIBRE SUSPENSIONS
CHAIR		H. Andersson
TIME	SPEAKER	TITLE
10:00 – 10:40	C. Aidun	Fibre suspension flow inside straight and converging channels
10:40 – 11:00	S. Skali-Lami	Flocculation of fibres suspension through a planar contraction
11:00 – 11:20	M. Putkiranta	The effect of channel contraction profile and turbulence on fiber orientation

11:20 – 11:40 COFFEE BREAK

SESSION 2		PARTICLE DYNAMICS IN FREE AND WALL-BOUNDED FLOWS
CHAIR		F. Lundell
TIME	SPEAKER	TITLE
11:40 – 12:00	F. Zhang	Disturbance growth during sedimentation in dilute fibre suspension
12:00 – 12:20	E. Variano	Rotation dynamics of ideal nonspherical particles and extension to field measurements
12:20 – 12:40	R. van Hout	Experimental investigation of non-spherical pollen grain settling in near homogeneous isotropic turbulence
12:40 – 13:00	A. Seeliger	Experiments to assess the transport of fibrous insulation debris

13:00 – 14:00 LUNCH

SESSION 3		PARTICLE DYNAMICS IN FREE AND WALL-BOUNDED FLOWS
CHAIR		J. Hamalainen
TIME	SPEAKER	TITLE
14:00 – 14:20	F. Marra	Numerical modeling of char particles segregation in entrained-flow slagging gasifiers
14:20 – 14:40	R. Powell	Transport effects in fibrous suspensions
14:40 – 15:00	L. Tognotti	Non-spherical particle sub-models in comprehensive modelling of combustion systems
15:00 – 15:20	K. Volkov	Dynamics of non-spherical compound metal particle in non-uniform flow field

15:20 – 15:50 COFFEE BREAK

SESSION 4		PARTICLE DYNAMICS IN FREE AND WALL-BOUNDED FLOWS
CHAIR		C. Aidun
TIME	SPEAKER	TITLE
15:50 – 16:10	C. Marchioli	Orientation, distribution and deposition of inertial fibers in turbulent channel flow
16:10 – 16:30	M. Kvick	Analysis of particle streaks
16:30 – 16:50	K Hakansson	Streak formation and fibre orientation in near wall turbulent fibre suspension flow
16:50 – 17:10	L. Zhao	Two-way coupled simulations of ellipsoidal particles suspended in a turbulent channel flow

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**DAY 2 – Thursday, April 7, 2011**

SESSION 5		FLUID-PARTICLE INTERACTIONS	
CHAIR		C. Marchioli	
TIME	SPEAKER	TITLE	
09:00 – 09:20	F. Lundell	Triaxial ellipsoids in creeping shear at high rotational Stokes numbers	
09:20 – 09:40	H. Niskanen	On the development of fibre orientation in jet-to-wire impingement	
09:40 – 10:00	S. Dearing	Optical characterization of fibers suspensions in turbulent pipe flow	
10:00 – 10:20	J. Olson	Experimental characterization of turbulent fibre suspensions with wall suction	
10:20 – 10:40	A. Kartushinsky	Deposition of solid particles at streamlined surface in turbulent flow	

10:40 – 11:10 COFFEE BREAK

SESSION 6		POLYMERS AND DRAG REDUCTION	
CHAIR		M. Reeks	
TIME	SPEAKER	TITLE	
11:10 – 11:30	G. Bellani	Turbulence modulation effects by finite-size ellipsoidal particles	
11:30 – 11:50	A. Moosaie	Numerical investigation of drag reduction in turbulent channel flow by rigid fibers using a direct Monte-Carlo method	
11:50 – 12:10	R. Delfos	Experiments on drag reduction	
12:10 – 12:30	E. de Angelis	Wall turbulence with rod-like polymers	
12:30 – 12:50	J. Gillissen	Polymer elasticity and turbulent drag reduction	

12:50 – 14:00 LUNCH

SESSION 7		AGGLOMERATES AND PARTICLES WITH INTERNAL DYNAMICS	
CHAIR		R. Powell	
TIME	SPEAKER	TITLE	
14:00 – 14:20	M.W. Reeks	A simple shell model for the break-up of agglomerates in turbulent flows	
14:20 – 14:40	M. Dietzel	Lattice-Boltzmann simulations for characterizing the behaviour of agglomerates with different morphologies	
14:40 – 15:00	F. Toschi	Small and large droplets in turbulent flows	
15:00 – 15:20	D. Hanstorp	Dynamics of micro-rods in micro-fluidic channels	

15:20 – 15:50 COFFEE BREAK

SESSION 8		FOCUS ON INDUSTRIAL APPLICATIONS	
CHAIR		A. Soldati	
TIME	SPEAKER	TITLE	
15:50 – 16:10	M. Fantoni (FANTONI)	Fiber problems in the fiberboard making process	
16:10 – 16:30	T. Parssinen (METSO)	Fiber suspension flow and paper quality: the importance of research work to Metso	
16:30 – 16:50	J. Hamalainen	Presentation of COST Action on “Fiber suspension Flow modelling”	
16:50 – 17:30		COST Action Preliminary Meeting	

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**DAY 3 – Friday, April 8, 2011**

SESSION 9		ADVANCES IN MEASUREMENT AND SIMULATION TECHNIQUES	
CHAIR		R. van Hout	
TIME	SPEAKER	TITLE	
09:00 – 09:20	<b>M. Barri</b>	<b>New scheme for torque coupling</b>	
09:20 – 09:40	<b>B. van Wachem</b>	<b>Modelling of gas-solid turbulent flows with non-spherical particles</b>	
09:40 – 10:00	<b>G. Kondora</b>	<b>Drag coefficient of finite cylinder at moderate Reynolds number and its implementation to fibre model</b>	
10:00 – 10:20	<b>G.M. Cartland Glover</b>	<b>Numerical models used for the modelling of the transport of fibrous insulation debris</b>	
10:20 – 10:40	<b>A. Abbasi- Hoseini</b>	<b>Combined PIV and fibre orientation measurements on the KTH water-table</b>	

10:40 – 11:10 COFFEE BREAK

SESSION 10		RHEOLOGICAL MODELLING	
CHAIR		F. Toschi	
TIME	SPEAKER	TITLE	
11:10 – 11:30	<b>B. Mehlig</b>	<b>Poincare indices of rheoscopic visualisations</b>	
11:30 – 11:50	<b>M.G. Rasteiro</b>	<b>Rheology of fibre suspensions: using the rheological characterization in CFD models for fibre flow</b>	
11:50 – 12:10	<b>S. Haavisto</b>	<b>Rheological properties of a microfibrillated cellulose suspension</b>	
12:10 – 12:30	<b>H.L. Pécseli</b>	<b>Numerical studies of encounter rates and transit times for small moving surfaces in turbulent flows</b>	
12:30 – 12:50	<b>F. Paparella</b>	<b>Heavy spheroidal particles as a model for Phytoplankton cells</b>	

12:50 – 13:00

Closing

12:50 – 14:00 LUNCH