

# 2010 Ercoftac-Belgium Yearly Seminar

Point Centre – Avenue Georges Lemaître 19, 6041 Gosselies

- 8:30 am **Registration and welcome**
- 9:00 am **Simulation of large-scale wind farms in the atmospheric boundary layer**  
Johan Meyers  
KUL
- 9:25 am **Evaluation of Leray and Verstappen regularizations in LES, without and with SGS modeling**  
Nicolas Bourgeois, Grégoire Winckelmans, Yoan Collet, Matthieu Duponcheel  
UCL
- 9:50 am **Linear stability of hypersonic flows: methodology and tools toward the prediction of transition**  
Fabio Pinna  
VKI
- 10:15 am **Coffee break**
- 10:45 am **DNS investigations with a high order discontinuous finite element Galerkin method**  
Corentin Carton<sup>1</sup>, Koen Hillewaert<sup>1</sup>, Philippe Geuzaine<sup>1</sup>  
Matthieu Duponcheel<sup>2</sup>, Grégoire Winckelmans<sup>2</sup>  
<sup>1</sup>Cenaero, <sup>2</sup>UCL
- 11:10 am **Study of a membrane pump by simulating its fluid-structure interaction in a partitioned way**  
Joris Bols, Liesbeth Taelman, Joris Degroote, Jan Vierendeels  
UGent
- 11:35 am **Investigation on slip velocity models and their applicability to sedimentation problems**  
Patryk Widera, Chris Lacor  
VUB
- Noon **Lunch**

- 1:15 pm **A low-frequency precessing flow structure in the wake of an annular jet**  
Kristof Van Dyck, Maarten Vanierschot, Paul Sas, Eric Van den Bulck  
KUL
- 1:40 pm **Numerical study of particle deposition in human upper airways with emphasis on hot-spot formation**  
Vivek Agnihtri, Sylvia Verbanck, Chris Lacor  
VUB
- 2:05 pm **Apparent pyrolysis model for CFD simulation of biomass combustion**  
Julien Blondeau, Hervé Jeanmart  
UCL
- 2:30 pm **Coffee break**
- 2:45 pm **FSI computation with a modal approach**  
Francois Debrabandere  
NUMECA
- 3:10 pm **Ignition of flammable gases by impinging heat transfer**  
Jan Timmermans, F. Van den Schoor, J. Berghmans and E. Van den Bulck  
KUL
- 3:35 pm **Turbulent flow in rotating rib-roughened channel**  
Filippo Coletti  
VKI
- 4:00 pm **End**