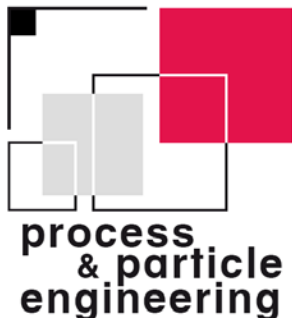


***IEA Bioenergy Task 32 workshop:
CFD aided design and other design tools for
industrial biomass combustion plants***

Ingwald Obernberger

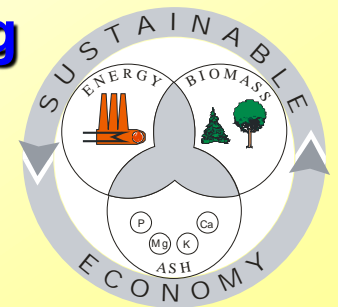


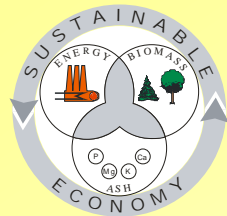
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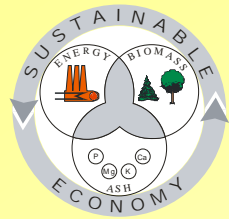


Workshop Programme Session 1

Chairperson: Ingwald Obernberger

- 13:00** **IEA Bioenergy Task 32 – Biomass Combustion and Co-firing - Overview**
(Jaap Koppejan, IEA Bioenergy Task 32)
- 13:05** **Workshop content and objectives**
(I. Obernberger, Graz University of Technology, AT)
- 13:15** **Overview – CFD simulations of biomass combustion plants – present applications**
(K. Andersen, Force Technology, DK)
- 13:30** **Overview – CFD simulations of biomass combustion plants – new developments**
(R. Scharler, BIOENERGY2020+, AT)
- 13:45** **Single particle modelling for implementation into CFD**
(H. Thunman, Chalmers University, SE)
- 14:10** **Coupled CFD/DEM simulation of reacting solid biomass on grates**
(S. Wirtz, LEAT, Ruhr University Bochum, GE)
- 14:35** **3D CFD modelling of solid biomass combustion in grate furnaces**
(R. Mehrabian, BIOENERGY2020+, AT)
- 15:00** **Moving grate combustion optimisation with CFD and PIV**
(T. Nussbaumer, ETH Zürich, CH)

15:25-15:50 Coffee Break



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Workshop Programme

Session 2

Chairperson: Robert Scharler

- 15:50** **Modelling of SO_x formation and subsequent sulfation for CFD applications** (*P. Glarborg, DTU, DK*)
- 16:15** **CFD simulation of NO_x formation in fixed-bed biomass combustion plants** (*C. Benesch, BIOS BIOENERGIESYSTEME GmbH, AT*)
- 16:40** **3D CFD modelling of biomass co-firing and conversion to 100% biomass pulverized fuel boilers including validation of NO_x and burnout predictions** (*B. Risio, RECOM Services GmbH, DE*)
- 17:05** **Assessment of the effect of co-firing on plant performance by the DNV KEMA thermodynamic model** (*M. Cremers, DNV KEMA, NL*)
- 17:30** **CFD simulation of pulverized fuel combustion, gasification and ash deposition in entrained flow reactors** (*S. Halama, U. Kleinhans, H. Spliethoff, TU Munich, DE*)
- 17:55** **Automatic CFD optimisation of biomass combustion plants** (*A. Shiehnejad, BIOENERGY2020+ GmbH, AT*)
- 18:20** **CFD modelling of fluidised bed combustion plants** (*M. Huttunen, P. Jukola, VTT, FI*)
- 18:45-18:55** **Summary & conclusions** (*I. Obernberger, AT*)