



Fluent CFD Seminar:

Product Updates, Combustion & Particulate Modelling

Adelaide, July 21st 2005

Fluvius Pty Ltd is pleased to announce a series of FLUENT presentations that will take place July 21st in Room S117 (Davis Room) at Adelaide University, Mechanical Engineering Department. All users and interested non-users of the FLUENT range of flow modelling products are invited to attend this event, which is free.

Agenda

- 9.00am **Fluvius Company Update & Fluent Product Overview**

- 9.20am **FLUENT Product Update for CFD Analysts**

Topics covered include Moving & Deforming Meshes, Multiphase and Free-surface flows, Non-Conformal and Sliding Interfaces, Reacting Flows, Solver Accuracy & Transient Efficiency, Turbulence and Acoustics Simulation. Pre-processing advancements in both GAMBIT and TGRID are also presented.

- 10.30am Morning Break

- 10.45am **FLOWIZARD Product Update for Design Engineers**

FLOWIZARD is tailored for non-CFD specialists. Integrated with CAD and using a wizard-driven interface, the user is guided through the analysis. Using FLUENT technology but repurposing it for mainstream environments, FLOWIZARD is fast, easy-to-use and compatible with FLUENT 6.2

- 11.00am **FLOWIZARD Demonstration**

- 11.45am **Introduction to Combustion Modelling in Fluent**

Techniques for modelling gaseous (premixed, non-premixed), discrete phase and multiphase (Eulerian) combustion problems in Fluent are summarised, including models for simulating detailed turbulence-chemistry interaction.

- 12.30am Lunch Break

- 1.30pm **Advanced Combustion Modelling & Practical Considerations**

Industrial case studies are presented that review meshing strategies and model selection. An overview is given for simulating in-cylinder applications, sprays, heterogenous reactions and customising reaction rates using UDF's.

- 2.15pm **Particle Modelling Approaches using FLUENT and EDEM**

The range of models for simulating particulate systems in Fluent is presented, including Lagrangian, Eulerian and Macroscopic Particle techniques as well as Fluent's partnership with DEM Solutions Pty Ltd. for providing DEM capability.

- 3.00pm End of Seminar