MASSIMO GALBIATI

Position   CFD Project Manager

LinkedIn   http://www.linkedin.com/pub/massimo-galbiati/63/ba2/416

Degree   Master in Environmental Engineering, 1998, from Politecnico of Milano

                 Master in Economy of Energy and Environment, 2000, from ENI SpA

Background

Experienced user of modelling and simulation codes such as modeFRONTIER, Flowmaster and Ansys products, such as CFX and FLUENT. Has developed several consultancy projects in the field of:

- HVAC applications (heat transfer, ventilation systems, thermal comfort)
- Multi-phase flows applications (particle transport, free surface flows, separation, abatement systems, mixers and multi-phase reactors),
- Reacting flows applications (gaseous, solid and liquid combustion with emission evaluation)
- Heat transfer by radiation

Key Areas of Competences

- Design driven by simulation and development of projects in the following industries: Oil & Gas, Chemical & Process, Mining.
- Experience both in 1D and 3D Computational Fluid Dynamics and in applying optimization methods for the design of components and systems.

Recent Projects

- Nickel refining plant: design of pulse columns, air supply systems, acid and slurry pumps and networks. Optimisation of the column internals to improve the refining efficiency (GORO Project - Vale).
- PET preform sterilization and re-heating systems in food&beverage industry: optimization of the system to minimize energy consumption, assure proper sterilisation and get the right PET temperature profile before the blowing phase (Sidel).

- High speed train ventilation and thermal comfort study: creation of a virtual climatic chamber to optimize the train HVAC system and to evaluate the thermal comfort in the passengers compartments (Ansaldobreda).

R&D Projects Community projects

- INNOFRIDGE

Clients

- Eni
- Saipem
- Cooper Cameron
- Foster wheeler
- SBM Offshore
- Aker Solutions
- KT
- Technip
- Maire Technimont
- Mib
- Tecnomare
- Petrolvalves

Publications/Papers

- "Optimisation techniques applied to the design of gas turbine blades cooling systems" – Bucchieri ; Galbiati ; Coutandin – ASME TurboExpo 2006 - GT2006-90771.
- "Thermal design optimisation in turbomachinery elements." D. Coutandin, M. Galbiati, F. Pinto, CADFEM Conference 2005 Bonn
- "Multiobjective Optimization of an aeronautical vaporizer by coupling of genetic algorithms and CFD solvers." L. Bucchieri, M. Galbiati, F. Turrini, F. Bertolotto. CADFEM Conference 2002 Friedrichshafen
- "Analysis of hybrid algorithms for the Navier-Stokes equations with respect to hydrodynamic stability theory" – Passoni ; Alfonsi ; Galbiati – International Journal for Numerical Methods in Fluids 2002; 38