
Post-Doc position at CNRS – CORIA Normandie Université & INSA de Rouen

Large-Eddy Simulation of reacting flows: application to optimization of residual-gases transformation

The proposed research program offers opportunities for conducting fundamental works in flow physics and computations. This post-doc position concerns the numerical modeling of residual-gases transformation; the ultimate objective is to help in the design and process control of a system transforming Nitric Oxides (NO_x) gases into components having a neutral impact on environment.

The work-program is twofold:

- A database of highly resolved Large Eddy Simulation (LES) will be investigated to seek out the coupling mechanisms between a turbulent flow and a selective non-catalytic reduction (SNCR) process based on urea spray injection. The study will focus on the impact of turbulent mixing on temperature fluctuations and process efficiency.
- Quasi one-dimensional modeling of a system under operation will be developed, to end up with a numerical tool ready for system optimization.

The work is organized within a close collaboration between CNRS-CORIA and SOLVAY, a world leader in the field of chemical components.

The Post-Doc candidate should have a background in CFD and reacting flow simulation.

Duration: 1 year

Location: ROUEN – FRANCE – www.coria-cfd.fr

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