Researcher position

Laboratory: PROMES-CNRS (UPR 8521) 66120 Odeillo, France

- **CNRS Section: 10** (Fluid and reactive media : transport, transfer and transformation processes)
- **Tenured position**
- **Short profile:** fluid mechanics, heat transfer, laser diagnostics methods, solar energy
- **Requirements:** PhD + 1 postdoc minimum

Development of research in the field of fluid-wall heat transfers in high temperature solar receivers

PROMES laboratory will strongly support outstanding applications for a research or a senior researcher scientist position to work in one of its research team based in Odeillo, Pyrénées Orientales.

The selection process will take place in Paris as part of the national competition organized each year by the French National Center for Scientific Research to fulfill its open positions. The closing date for applications should be around January 6, 2018.

Research profile:

PROMES laboratory designs and develops solar power plants of the future. Solar receivers are key component for converting concentrated solar energy into heat. Flows in solar receivers are turbulent and highly anisothermal. They are also often two-phase flow (gas-liquid or gas-solid). These essential characteristics make that strong turbulence coupling exist inside solar receivers. The understanding and modelling of these couplings are still an open question. The study of these couplings should allow to propose new geometries for heat transfer enhancement and pressure drop minimizing.

PROMES laboratory is looking for a fluid mechanics experimenter to develop experimental approaches in controlled conditions (laboratory, fine measurements of velocity, pressure and temperature) until pilot scale and industrial prototype under real conditions. For experiments in controlled conditions, the candidate will build on the MEETIC wind tunnel of the lab especially equipped with a stereoscopic particle image velocimetry (SPIV) device. For the pilot study, he will use the big solar furnace of Odeillo and Themis solar plant.

Contact :

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