

TEMPS FREQUENCE

Tél. +33 (0)3 81 40 28 22
Fax. +33 (0)3 81 88 57 14
fabienne.cornu@ens2m.fr



France: Post-doctoral position in Applied Physics of Heat Transfer or in Applied Mathematics and Scientific Computing, FEMTO-ST, Besançon.

Applications are invited for a 9 month post-doctoral position in the framework of the NANOHEAT European project <http://www.nanoheat-project.eu/>.

Closing date for applications: **April 15st, 2014.**

This post-doctoral position is in the context of the development of a thermal AFM designed to measure temperatures, thermal conductivities as well as electrical conductivity at the scale of few tenths of nanometers. The team of FEMTO-ST working in this project is multi-disciplinary, indeed it includes specialists in applied mathematics, optimization, applied physics of micro-scale heat transfer, electronics and computer sciences. It is committed to produce modeling, simulation and optimization of the new micro-fabricated device as well a thermal regulation law based on a model. In addition to the regulation, the latter will also be used to interpret the measurements and to yield quantitative results. At the end, it will be implemented in a FPGA. A first regulation method has been derived from the theoretical point of view. It might be implementable and allow for the expected measurement interpretation after a step of model validation and calibration.

The post-doctoral fellow will be in charge to validate the proposed approach in simulation, and then to participate to its implementation on the nanoprobe of the project. He will then implement the model validation and calibration. Extensions of the proposed method will also be developed until their implementation.

The monthly gross wage is valued at about a 1,950€ for nine months. Applicants should have a good undergraduate degree, a master in Physics or in Pure or Applied Mathematics, and a PhD thesis in Applied Physics of Heat Transfer including an important theoretical part or in Applied Mathematics including a strong part of Scientific Computation.

Please email a CV and a letter outlining your areas of research interest, along with names and contact details of two referees who can comment on your academic suitability to Dr. Michel Lenczner, Dr. Damien Tessieux. The contacts for this project are: Dr. Michel Lenczner, FEMTO-ST 26, Chemin de l'épitaphe 25030 Besançon. Phone: +33 (0) 3 81 40 28 27, e-mail: [michel.lenczner\[at\]utbm.fr](mailto:michel.lenczner[at]utbm.fr) or Dr. Damien Tessieux, 32, avenue de l'Observatoire F-25044 Besançon. Phone: +33 (0)3 81 85 39 28, e-mail : [dteyssieux\[at\]femto-st.fr](mailto:dteyssieux[at]femto-st.fr).