



LABORATOIRE ONDES ET MATIÈRE D'AQUITAINE
UMR 5798 - UNIVERSITÉ DE BORDEAUX - CNRS

Post-Doctoral/ Research Associate in Condensed Matter Theory: SUPERTRONICS

In the framework of the French National Research Agency (ANR) project « SUPERTRONICS » - *Control of superconducting currents via spin and field effects: fundamentals for an offbeat electronics* we have **an immediate opening of two-year position** of the Post-Doctoral/ Research Associate in Condensed Matter Theory. *The post is initially for a period of 12 months and is renewable for a further 12 months.* The successful candidate will work in the group of Alexander Buzdin in LOMA (Laboratoire Ondes et Matière d'Aquitaine), University of Bordeaux, France (<https://www.loma.cnrs.fr/equipe-exostates/>).

The ANR project « SUPERTRONICS - Control of superconducting currents via spin and field effects: fundamentals for an offbeat electronics » is focused on the understanding and tailoring interface interactions between high-temperature superconductors, ferromagnets and ferroelectrics. The theoretical activity in Bordeaux is performed in close collaboration with the experimental groups of Javier Villegas (CNRS/Thales) and Jerome Lesueur (ESPCI).

The subject of research is the coupling between magnetism and superconductivity, including the dynamical effects and spin-orbit interaction. These studies should also pave a way to the optically driven superconducting electronics and spintronics. The exploratory work in this domain is in progress in the group of Brahim Lounis (LP2N, University of Bordeaux).

Theory group of Alexander Buzdin has numerous national and international collaborations with the leading scientists working in the field of superconductivity. The appointed Research Associate will participate in the development of the new fascinating domain in the Condensed Matter Physics.

We are looking for a highly motivated and enthusiastic candidate, preferentially with a strong background in the theory of magnetism and superconductivity.

This position is based at the Department of Physics, University of Bordeaux. Bordeaux is currently at the top of the list “the best places in France to live”.

The salary will depend on experience and is subjected to CNRS employment regulations.

The interested candidates are invited to submit CV, list of publications and reference contacts to Prof. Alexander Buzdin via email

alexandre.bouzdine@u-bordeaux.fr