



**DENIS MORINEAU**

*From France to Sweden*



Project: **Nanoconfined molecular phases**

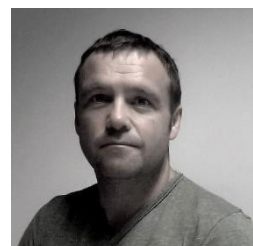
Research topic: **Physics**

Swedish Institution: **Chalmers University of Technology**

French Institution: **CNRS, Université of Rennes 1**

Dates of mobility: **15/05/2019 to 21/05/2019**

Program: **SFVE-A (ex TOR)**



## PRESENTATION

[Denis Morineau](#) is a Director of Research at [Institute of Physics](#), [Rennes University](#), [CNRS](#). His research activities concern the fields of Chemical-Physics and Nanoscience, and more specifically nanoconfined molecular phases. The aim of Denis Morineau's team is to achieve a better understanding of the peculiar behaviour of molecular phases when they are manipulated (confined) in channels of nanometric dimension. These systems show up exceptional features, which usually correspond to current challenging questions for basic research in Physics of condensed matter but also key issues for future developments with respect to nanomaterials and new openings toward nanofluidics. Our activity relies on the use of complementary experimental techniques (in lab spectroscopies or neutron scattering) and computational molecular simulations.

## ACTIVITIES IN SWEDEN

Denis Morineau's visit to Sweden was motivated by the intention to initiate new scientific partnerships between his team and [Chalmers University of Technology](#)'s researchers, which would serve as grounds for joint research proposals, PhD student training, and exchange of young researchers. There, he visited [Prof. Aleksandar Matic](#) and [Prof. Jan Swenson](#), with whom he already had contacts, and also had the opportunity to meet [Prof. Anna Martinelli](#).

The researchers established in France and Sweden were both working on the physics of glass-forming molecular liquids, H-bonded, and alternative solvents (ionic liquids, deep eutectic solvents, bioprotectant), in mixtures and in nanoporous confinement. They were working in complementary approaches on molecular dynamics simulation, broadband spectroscopies, neutron diffraction and quasielastic scattering. Starting a research collaboration was also interesting regarding the French and Swedish neutron user's community, as Sweden will be hosting the future [European Neutron Source ESS](#) in Lund.