

Research Project

Mechanic and Electronic interaction in 2D supramolecular layers. Properties in local and periodic confinement.

Third-party funded project

Project title Mechanic and Electronic interaction in 2D supramolecular layers. Properties in local and periodic confinement.

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Organisation / Research unit

Departement Physik / Physik

Department

Project start 01.10.2017

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Status Completed

In this project, we shall investigate the properties of condensates formed in the confinements provided by porous networks supported on systematically modified solid substrates. Thereby, specific hybrid nano-architecture arrays can be formed at surfaces from organic, (semi-)metallic¹, and superconducting components and can be addressed and investigated by local probe experiments as well as by structural and chemical surface analytical techniques, also with synchrotron radiation. Based on recent achievements we plan to inspect the structure of the condensates, their temperature- and stimulus-induced structural transformation, the local and non-local electronic states created therein as well as different electronic state derived properties like superconductivity/Majorana and Kondo/Ruderman, Kittel, Kasuya and Yosida (RKKY) physics.

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