

Surface science, ready for mesoscopic physics ?

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Amphithéâtre SOLEIL

Low dimensional structures, e.g. quantum wires and films, reveal fascinating phenomena of condensed matter physics. Among others, 2D-superconductivity, charge density waves, Luttinger liquids and topologically protected edge states have been realized lately by atomic-sized surface structures. A surface science approach benefits from the fact that these systems can be comprehensively characterized and manipulated in view of their atomic structure and electronic bands. Even more, tuning of external fields, temperature, chemical potentials by adsorption, ordering, etc. facilitates a systematic approach to study effects of electronic correlation and mesoscopic properties and tailor the properties of surface quantum systems. In this talk I will highlight this capability by talking about recent transport experiments done on graphene nanostructures on SiC as well as atomic wires grown by self-assembly on semiconducting supports.



Ce séminaire sera suivi d'une pause café

SEMINAIRE

Formalités d'entrée : accès libre dans l'amphi du pavillon d'Accueil.

Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central merci de vous munir
d'une pièce d'identité
(à échanger à l'accueil contre un badge d'accès)

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