SFB1242

SFB 1242 Nichtgleichgewichtsdynamik kondensierter Materie in der Zeitdomäne

UNIVERSITÄT DUISBURG ESSEN

Open-Minded

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Campus Duisburg

ELECTRONIC STRUCTURE AND ELECTRON DYNAMICS IN TWO-DIMENSIONAL DIRAC MATERIALS

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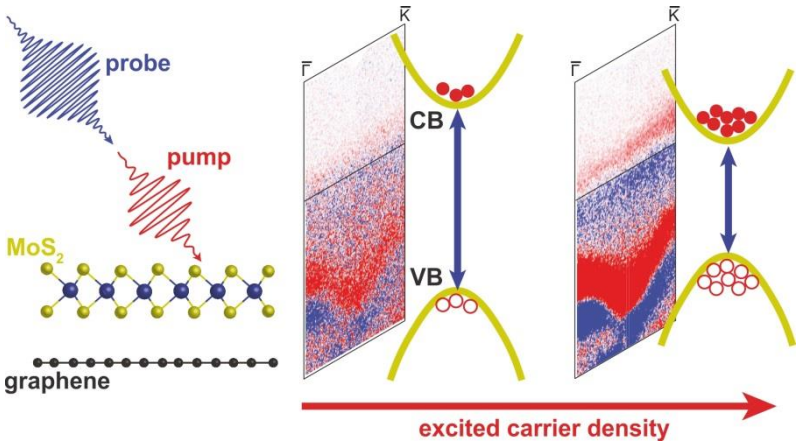
Artificial two-dimensional (2D) materials, such as graphene or single-layer transition metal dichalcogenides, permit the realization of massless and massive Dirac fermions. A special feature of the 2D materials is that their electronic properties, for instance their band gap, can be strongly influenced by either their dielectric environment or by the excited carrier density in the material.

Here we exploit this sensitivity to achieve a static and dynamic change in the electronic properties of 2D materials such as graphene and single layer WS_2. This control of properties is demonstrated using scanning tunnelling microscopy and (time-resolved) angle-resolved photoemission spectroscopy.



Für diese Zeit steht eine Kinderbetreuung nach vorheriger Anmeldung zur Verfügung.

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