THE PHYSICS COLLOQUIUM

Thursday 11 April 2024, 4:00 p.m.
Nijenborgh 4, Lecture Hall 5111.0080

Determining ultrafast surface charge dynamics of 2D materials with ion-electron coincidence spectroscopy

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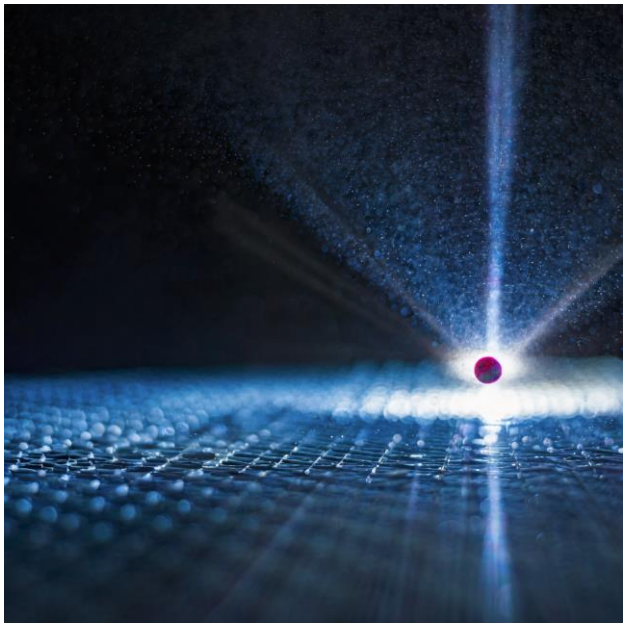

The interaction of multiply charged ions with solid surfaces can induce strong and localized electronic excitations as a result of charge exchange.

While ultimately these exciations can be used for material modifications on the atomic scale through electronic sputtering, the susceptibility of a surface to this type of nanoscale machining is determined by the local surface response to strong excitations.

Probing the nanoscale charge dynamics on a femtosecond timescale is challenging, but using promptly emitted (messenger) electrons from the ion impact on a freestanding 2D material in coincidence with the transmitted ion finally allows a detailed insight on how long an induced surface charge stays confined.

Join us for coffee starting 3:30 p.m. Refreshments will be served after the lecture.

For more information contact the host: Ronnie Hoekstra (r.a.hoekstra@rug.nl)
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