AVVISO DI SEMINARIO

Il giorno **4 Novembre 2025** ore **11.00**, aula **Seminari U5 p.1**

il Dr. **Andrea Morales**
co-founder QZabre,

terrà un seminario dal titolo:

Quantum sensing with NV centers: magnetometry and beyond

Sensing with Nitrogen-vacancy centers, where a single spin defect in diamond is used as an atomic scale magnetic field sensor, is seeing increased adoption through the academic community. The capabilities of the NV as a sensor, however, offer much more than the quantitative mapping of weak magnetic fields.

In this talk I will present our most recent progress towards the development of scanning NV technology as a commercial product to image weak DC as well as AC fields with resolution approaching the nanometer scale and speeds that are comparable with other SPM techniques. I will also show how in recent years, NV sensing has been proven to be a powerful technique to perform surface analysis beyond conventional magnetometry.

Applications of the technique include imaging of antiferromagnetic films, skyrmions, multiferroics, surface current density, spin waves and FMR resonances, magnetic noise as well as microwave field imaging. In the last part of the talk I will also discuss applications for failure analysis of nanoscale devices and magnetic memories.

Colleghi, studenti e tutti gli interessati sono invitati a partecipare.

Per informazioni rivolgersi a

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