W2S Seminar
(Webinar series on Spintronics)

$KTaO_3$ two-dimensional electron gas : a new playground for spin-charge interconversion and superconductivity

Speaker:

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Date and time:
10.11.2022 at
8.00 pm IST
i.e. 3.30 pm CET

Abstract

The oxide-based two-dimensional electron gas (2DEG) manifests a wide array of functionalities such as high electronic mobility, tunable Rashba spin-orbit coupling (SOC) with efficient spin – charge interconversion, and low temperature superconductivity. In this talk, I will discuss the latter two properties of a relatively newer oxide 2DEG based on $KTaO_3$ which has one order of higher magnitude of both the Rashba coefficient and the superconducting T_C in comparison to the well known $SrTiO_3$ based 2DEGs. Further, I will discuss how our finding offers innovative perspectives for device applications related to spin-orbitronics and topological electronics.

To attend the lecture please visit: **Passcode: 700816** Zoom link:
https://us06web.zoom.us/j/83480516953?pwd=VXRuc0ZacjZjenBOWGcxWkR2cnBYUT09

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