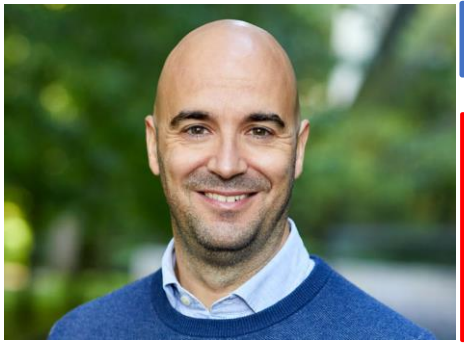
W2S Seminar
(Webinar series on Spintronics)



Spin-Orbit Effects in Graphene heterostructures

Speaker:
Prof. Luis E. Hueso
CIC nanoGUNE
San Sebastian (Spain)

Date and time:
27.05.2021 at
03.00 pm (IST)
i.e. 11.30 am CET

Abstract

Spin-to-charge conversion effects are at the basis of many recent developments in spintronics, from spin Hall magnetoresistance to spin-orbit torques. In this talk I will present the opportunities that van der Waals heterostructures offer for spin-to-charge conversion. Starting from simple devices with Pt/graphene interfaces in which the spin-to-charge conversion can be maximized when compared with conventional all-metallic structures, I will explore more sophisticated possibilities. In particular, I will detail the multidirectional spin Hall effect in MoTe2 and the creation of spin Hall effect in graphene by spin-orbit proximity effect. Some recent references to our work are: W. Yan et al., Nature Commun. 7, 13372 (2016); C. K. Safeer et al., Nano Lett. 19, 1074 (2019); F. Herling et al., APL Mater. 8, 071103 (2020); C. K. Safeer et al., Nano Lett. 19, 8758 (2019); C. K. Safeer et al., Nano Lett. 20, 4573 (2020).

To attend the lecture please visit
Zoom link: https://zoom.us/j/91827075264

Contact: Prof. Subhankar Bedanta (Convenor W2S)
Email: w2s-spintronics@niser.ac.in

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