UNIVERSITÀ di VERONA

Scuola di Dottorato
di **SCIENZE NATURALI E INGEGNERISTICHE**

Corso di Dottorato in Nanoscienze e tecnologie avanzate

"Synthesis of 2D layered materials: graphene, TMDCs, & more"

April 5, 2017 - h. 15.00

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Abstract

The purpose of this talk is to give an overview on the synthesis of two-dimensional (2D) materials, which are very much in fashion in research thanks to their properties and applicability in many applications.
Starting from graphene, Nobel prize winner material, we will understand what are its strengths and limitations; from graphene, we will branch into an overview of the many other non-carbon 2D materials.
We will review the various techniques to fabricate few layers and monolayers and understand which materials are appropriate for which application. Since different materials exhibit different electrical properties and bandgaps, "Lego" stacks of multiple monolayers of different materials can be used to build entirely new types of electrical and optical devices and heterojunctions.
I will conclude the talk by showing a recent example of research from my lab on a new layered material from which we are fabricating monolayers and devices.

The lecture will take place at 15.00 – Sala Verde – Cà Vignal – Strada Le Grazie, 15

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