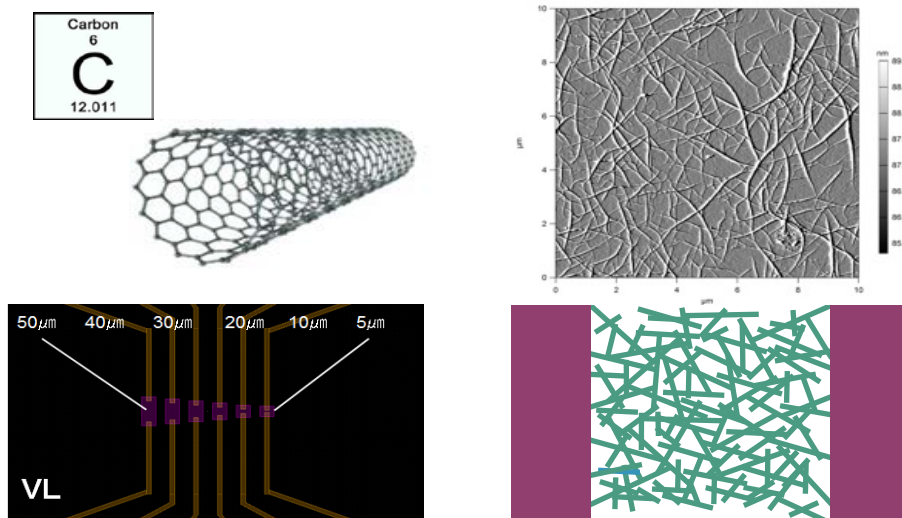


Department of Mathematics

Fall 2016 Colloquium Series



“Modeling Carbon Nanotube Networks”

Ruth Saunders,
Humboldt State University

Thursday, October 13, 2016

Behavioral and Social Sciences Building Room 166, 4 pm

Current industrial applications of semiconductors largely use a “top-down” approach to creating devices, etching features painstakingly from the material, using expensive and time-consuming precision lithographic processing. The emergence of a “bottom-up” approach – such as in the growth of semiconductor nanowires using guided self-assembly fabrication – is an exciting innovation. The building of well-structured Carbon Nanotube (CNT) systems is not yet practical, as the ability to position CNTs and reproducibly control the dimensions and chirality of the nanotube is limited. However, devices that make use of CNT’s through the creation of CNT networks, in which no real control of the position is needed and effects due to individual variations are reduced, are possible to manufacture. This talk will discuss the development of a model to explore the behavior of these networks.

Ruth Saunders is a new faculty member of the Physics and Astronomy Department at HSU. She has recently worked as a lecturer at Cal Poly in San Luis Obispo. She got in her PhD in 2012 from Dublin City University in Ireland researching the growth of ZnO nanowire.

For a complete abstract, go to <http://www.humboldt.edu/math/news-and-events/math-colloquium>

We cordially invite you to the Pre-Colloquium Tea on the third floor of the BSS

building at 3:30 pm on Thursday.