Physics Colloquium

Thursday, October 25, 2018

Speaker: **Oana Jurchescu**

Department of Physics, Wake Forest University, Winston-Salem, NC

"Every molecule counts:
from single crystals to large area organic flexible electronics"

Organic semiconductors provide an opportunity to augment silicon electronics in non-traditional areas such as clothing, electronic paper, flexible, or bio-integrated applications. Exciting emerging applications are near validation, hindered only by the requirement for better device performance and uniformity over large areas. In this talk I will discuss how the structure of the organic semiconductor and its degree of order, at several length scales, affect transport. Single crystals, solution deposited and laser printed devices will be presented. Transitioning from mono-molecular crystals to multi-component materials, such as the organic charge transfer complexes, I will show examples on how novel functionalities can emerge from intermolecular interactions.

Oana Jurchescu is an Associate Professor of Physics at Wake Forest University (WFU). She received her PhD in 2006 from Univ. of Groningen, the Netherlands, and was a postdoctoral researcher at NIST in Gaithersburg, MD, until 2009, when she joined WFU. Her expertise is in charge transport in organic and organic/inorganic hybrid semiconductors. She published over 65 peer-reviewed articles and 4 invited book chapters, and gave over 50 invited or plenary talks at conferences. She won an NSF CAREER award, an ORAU Ralph E. Powe Junior Faculty award, the WFU award for excellence in research, the WFU innovation award, the WFU prize for excellence in teaching and the WFU award for excellence in mentorship. She is a member of the editorial board from Scientific Reports (Nature publishing group)and she served in a variety of capacities, including program chair for over 30 conferences and such as MRS, APS, SPIE, etc.

Lewis Lab. 316 at 4:10PM

Refreshments at 3:45PM in LL. 317