



University of Minnesota Third Annual 2D Materials Summer School June 4th and 5th, 2018

The field of two dimensional (2D) materials is rapidly growing in response to the unique properties of these materials, the ability to tune properties with thickness, and the expanding list of potential applications. The latter include flexible electronics, sensors, high performance computing, information storage, power generation, optoelectronics, nanophotonics, and thermoelectrics. As a result of the diversity of applications, the range of 2D materials systems available is expanding dramatically. This annual Summer School is sponsored by the National Science Foundation's National Nano Coordinated Infrastructure Network (NNCI). The goal is to provide a venue for learning about these materials and applications. The first day will feature an outstanding group of speakers who will provide a discussion of the current state of the art in both 2D materials and their applications. The second day will provide hands-on exposure to both material growth and processing, and material and device modeling.

Preliminary Agenda

Day 1 – Monday, June 4th: Seminar Session

<u>Time</u>	<u>Speaker</u>	<u>Affiliation</u>	<u>Title</u>
08:00-08:10	Stephen Campbell	UMN	Welcome and goals
08:10-09:00	Aaron Franklin	Duke	2D material devices
09:00-09:50	Eugene Mele	U Penn	2D material theory
09:50-10:10	Break		
10:10-11:00	Abhay Pasupathy Narayan	Columbia	2D material defects
11:00-11:50	Charlie Johnson	U Penn	2D material biosensors
11:50-13:20	Lunch break		
13:20-14:10	Joshua Robinson	Penn State	2D material growth
14:10-15:00	Roland Kawakami	Ohio State	2D material spintronics
15:00-15:20	Break		
15:20-16:10	Vinod Menon	CUNY	2D materials polaritons
16:10-17:00	Juan Sebastian Gomez Diaz	UC Davis	2D materials metasurface

Day 2 – Tuesday, June 5th: Hands-on Session

<u>Time</u>	<u>Speaker</u>	<u>Affiliation</u>	<u>Title</u>
08:00-10:00	Tony Low	UMN	Modeling tool demo & training
10:00-10:10	Break		
10:10-11:00	Steven Koester	UMN	2D device fabrication
11:00-13:00	Hands-on 2D material demonstrations		

TO APPLY TO ATTEND BOTH DAYS

Send the following information to Becky von Dissen at vondi001@umn.edu:

1. Institution and advisor name/email
2. Current status (undergrad, grad, postdoc, other)
3. Year (if student) or grad year (if postdoc/other)
4. Is your interest mainly experimental, theoretical, or both?
5. One line statement about your general research direction

If you would like to attend the Day 1 talks ONLY, simply email Becky to sign-up.

Registration is required, but there is no registration fee. Expense assistance for travel and lodging is possible for graduate students and postdocs who are staying both days. There is strict limit on the number of attendees for day two. Apply as soon as possible if interested.

The last 2 Summer Schools have been very well received and highly rated by participants. 90% of attendees rated the talks and demonstrations positively. Day 2 demonstrations were filled to capacity and about 50 people attended the Day 1 talks.