



## University of Minnesota Second Annual 2D Materials Summer School May 15<sup>th</sup> and 16<sup>th</sup>, 2017

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, May 15<sup>th</sup>: 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	Deji Akinwande	UT Austin	2D material devices
09:00-09:50	Boris Yakobson	Rice	2D material defects
09:50-10:10	<i>Break</i>		
10:10-11:00	James Hone	Columbia	2D material mechanical properties
11:00-11:50	Evan Reed	Stanford	2D material piezoelectrics
11:50-13:20	<i>Lunch break</i>		
13:20-14:10	Albert Davydov	NIST	Phase diagrams of Metal-Chalcogen systems as a guidance for 2D materials fabrication and processing
14:10-15:00	Efthimios Kaxiras	Harvard	2D material modeling
15:00-15:20	<i>Break</i>		
15:20-16:10	Fengnian Xia	Yale	2D materials nanophotonics
16:10-17:00	Joshua Caldwell	NRL/Vanderbilt	2D materials polaritons

Day 2 – Tuesday, May 16<sup>th</sup>: 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	<i>Break</i>		
10:10-11:00	Steven Koester	UMN	2D device fabrication
11:00-13:00	Hands-on 2D material demonstrations		

To register to attend the Day 1 talks, email Becky von Dissen at [vondi001@umn.edu](mailto:vondi001@umn.edu). The Day 2 activities are full.

*Last year's Summer School was 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. Please let us know if you're interested in this year's event!*