WK6 CNM: Emerging Electronic, Optoelectronic and Mechanical Devices based on van der Waals 2D Materials

Organizers: Irma Kuljanishvili (Saint Louis University) and Saptarshi Das (Penn State)

8:30	Opening Remarks
8:35	Jiwoong Park (University of Chicago) *Atomically Thin Materials for Technology*
9:25	Ali Javey (University of California at Berkeley) *Making Semiconductor Monolayers Perfectly Bright*
10:15	Break
10:30	Zhihong Chen (Purdue University) *2D Cu Diffusion Barriers for Ultra-Scaled Interconnect Technologies*
11:20	Mark Hersam (Northwestern University) *Mixed-dimensional van der Waals Heterostructures for Electronic and Energy Applications*
12:10	Lunch
1:40	Philip Feng (Case Western Reserve University) *Atomic Layer Semiconductor and Heterostructure Nanoelectromechanical Systems for Information Processing*
2:30	Ani Sumant (Argonne National Laboratory) *Advances in Superlubricity Using Hybrid 2D Materials-based Lubricants*
3:20	Break
3:40	Xiaodong Xu (The University of Washington) *Moiré-excitons in $MoSe_2/WSe_2$ Heterobilayers*
4:30	Vikas Berry (University of Illinois-Chicago) *Chemical and Structural Manipulation of Graphene and Other 2D Nanomaterials for Electronics and Optoelectronics*
5:20	Closing Remarks
5:30	Adjourn