

MAR17-2016-020186

Abstract for an Invited Paper
for the MAR17 Meeting of
the American Physical Society

Interfacial Exciton Dynamics in Atomically Thin Semiconductors¹

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Dielectric confinement in atomically thin transition metal dichalcogenides (TMDs) leads to excitonic behavior that differs markedly from bulk semiconductors. Through time-resolved optical microscopy studies of exciton transport and interfacial energy transfer in monolayer MoS₂ and WS₂, I will demonstrate the dominant role of dielectric screening in exciton-exciton interactions in this system, and how this affects our understanding of interfacial dynamics in atomically thin semiconductors.

¹This work was supported as part of the Center for Excitonics, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences under Award Number DE-SC0001088 (MIT).