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ARPES Studies of Monolayer FeSe on MBE Controlled Titanate Heterostructures SLAVKO REBEC, Stanford University, Department of Applied Physics, TAO JIA, Stanford University, Department of Physics, HAFIZ SOHAIL, Stanford University, Department of Applied Physics, ROBERT MOORE, Stanford Institute for Materials and Energy Sciences, ZHI-XUN SHEN, Stanford University, Department of Applied Physics — For 2D films, interface interactions can play a critical role in determining the prevailing physics of the system. In the case of 1ML FeSe on SrTiO3, interfacial electron-phonon (e-ph) coupling greatly increases its superconducting Tc over its bulk counterpart. Here we study this coupling through MBE control of the titanate heterostructures, with the hope of generalizing this enhancement to other systems. Here we present recent in-situ angle-resolved photo emission studies of the interfacial e-ph coupling on MBE grown ML FeSe samples.

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