

Abstract Submitted
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ARPES studies on $\text{FeTe}_{1-x}\text{Se}_x$ iron chalcogenides epitaxial thin films DAVIDE INNOCENTI, Advanced Light Source and University of Rome “Tor Vergata”, LUCA MORESCHINI, ALS, YOUNG JUN CHANG, ANDREW WALTER, ALS and Fritz-Haber-Institut, AARON BOSTWICK, ALS, DANIELE DI CASTRO, ANTONELLO TEBANO, PIER GIANNI MEDAGLIA, University of Rome “Tor Vergata”, EMILIO BELLINGERI, ILARIA PALLECCHI, CARLO FERDEGHINI, CNR-SPIN Genova, GIUSEPPE BALESTRINO, University of Rome “Tor Vergata”, ELI ROTENBERG, ALS — The physics of iron-based chalcogenides raises fundamental questions on the interplay of magnetic order and electron pairing at the origin of the superconducting state. We have performed angle-resolved photoemission spectroscopy (ARPES) studies on high-quality epitaxial thin films of $\text{FeTe}_{1-x}\text{Se}_x$, grown by *in situ* pulsed laser deposition (PLD) on beamline 7.0.1 at the ALS. Specifically, we are able to show the evolution of the band structure as a function of x . We discuss our experimental results in comparison to the available theoretical band calculations.

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