Abstract Submitted
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Ultrafast spectroscopy of the stripe phase of underdoped $La_{2-x}Sr_xCuO_4$ thin films DARIUS TORCHINSKY, FAHAD MAHMOOD, MIT, A. BOLLINGER, I. BOZOVIC, Brookhaven National Laboratory, NUH GEDIK, MIT — We have performed ultrafast measurements on high-T_c thin films of underdoped $La_{2-x}Sr_xCuO_4$. In these experiments, femtosecond pulses create photoexcitations derived from both the superconducting and striped phase fraction whose evolution and decay are probed as a function of time. We discuss the separate dynamics of these two electronic components as a function of temperature and excitation density.

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