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**A doping dependent study of nonequilibrium quasiparticle dynamics in electron and hole doped  $\text{BaFe}_2\text{As}_2$**  DARIUS TORCHINSKY, JAMES MCIVER, DAVID HSIEH, MIT, G.F. CHEN, J.L. LUO, N.L. WANG, Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, NUH GEDIK, MIT — We report on measurements of the doping dependence of quasiparticle dynamics in single-crystals of  $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$  and  $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$  in the superconducting state via ultrafast pump-probe spectroscopy. Quasiparticles are injected into the samples by ultrashort laser pulses. Once injected, they cause a reflectivity change of the sample at the laser frequency, allowing time-resolved optical measurements of their density. Our measurements reveal band-dependent quasiparticle recombination which provide clues on gap symmetry and electron-boson coupling.

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