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Nodal Quasiparticle Life Time in High-Tc Cuprates Z.H. PAN, H.B. YANG, P. RICHARD, J.H. MA, M. NEUPANE, Y.M. XU, A. SHEKHARAN, H. DING, G. GU, T. VALLA, P.D. JOHNSON, Department of Physics, Boston College, MA — Angle-Resolved Photoemission Spectroscopy (ARPES) are used to study the temperature dependence of nodal quasiparticle life time of $Bi_2Sr_2CaCu_2O_8$ (Bi2212) with different doping levels. For optimally doped (OP) and overdoped (OD) samples, a sudden change is observed in the temperature dependence of the scattering rate at Tc, however this change is not obvious in the underdoped (UD) samples.

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