

Abstract Submitted
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Linear magnetoresistance in the underdoped iron pnictide $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ ¹ JIUN-HAW CHU, HSUEH-HUI KUO, SCOTT RIGGS, JAMES ANALYTIS, IAN FISHER, Stanford University — BaFe_2As_2 suffers an antiferromagnetic transition which has been described in terms of a nodal spin density wave. The material exhibits a striking linear magnetoresistance in the low temperature antiferromagnetic state, possibly related to the unique character of the reconstructed Fermi surface. Here we present data showing the evolution of the magnetoresistance as a function of both composition and temperature for the specific case of $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$, revealing a correlation with other transport properties, including the in-plane resistivity anisotropy.

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