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Spin resonance dispersion in hole-doped $Ba_{0.67}K_{0.33}Fe_{1.84}Co_{0.16}As_2$
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National Laboratory, MING YI, MENG WANG, University of California, Berke-
ley, PENGCHENG DAI, Rice University — We present inelastic neutron scattering
measurement in hole doped $Ba_{0.67}K_{0.33}Fe_{1.84}Co_{0.16}As_2$ where the spin resonance
possesses an upward dispersion. Besides the universal enhanced signal of spin exci-
tation at Q_{AFM} in superconducting state, a dispersive, ring-like feature along both
transverse and longitudinal direction is found upon increasing energy. Our result
shed some light on the origin of spin resonance as well as understanding its relation-
ship with superconductivity in iron pnictides.

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