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Coexistence of antiferromagnetic and ferromagnetic spin correlations in $\text{Ca}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ studied by ^{75}As NMR¹ YUJI FURUKAWA, Ames Laboratory and Dept. of Phys. and Astro., Iowa State University, JINFANG CUI, Ames Laboratory and Chem. Dept., Iowa State University, PAUL WIECKI, SHENG RAN, SERGEY L. BUD'KO, PAUL C. CANFIELD, Ames Laboratory and Dept. of Phys. and Astro., Iowa State University — Recent nuclear magnetic resonance (NMR) measurements revealed the coexistence of stripe-type antiferromagnetic (AFM) and ferromagnetic (FM) spin correlations in both the hole- and electron-doped BaFe_2As_2 families of iron-pnictide superconductors by a Korringa ratio analysis.[1] Motivated by the NMR work, we have carried out ^{75}As NMR measurements in another iron pnictide superconducting family, $\text{Ca}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ [2] in order to investigate magnetic fluctuations, especially focusing on possible existence of FM fluctuations. By analyzing ^{75}As NMR data, we found clear evidence for the coexistence of stripe-type AFM and FM spin correlations in the $\text{Ca}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ system. In this talk, we discuss the characteristic magnetic fluctuations in the system. [1] P. Wiecki, et al., Phys. Rev. Lett. **115**, 137001 (2015). [2] J. Cui, et al., Phys. Rev. B **92**, 184504 (2015); J. Cui, et al., Phys. Rev. B (in print).

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