

Abstract Submitted  
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**Arsenic nuclear magnetic resonance in CaFe<sub>2</sub>As<sub>2</sub>** ADAM DIOGUARDI, NICHOLAS APROBERTS-WARREN, ABIGAIL SHOCKLEY, PETER KLAVINS, NICHOLAS CURRO, UCD Physics — We present <sup>75</sup>As nuclear magnetic resonance measurements in the paramagnetic and commensurate antiferromagnetic states of CaFe<sub>2</sub>As<sub>2</sub>. Single crystals were produced using a Sn flux method and characterized via powder X-Ray diffraction, susceptibility, and specific heat measurements. The NMR data show that the internal hyperfine field and electric field gradient change discontinuously at T<sub>0</sub> = 169K. The observed hyperfine field is consistent with stripelike antiferromagnetic ordering of the Fe spins in the ab plane. Spin lattice relaxation data show metallic T<sub>1</sub><sup>-1</sup> ~ T for T(<~) T<sub>0</sub>/3. However, T<sub>1</sub><sup>-1</sup> shows a small peak at 10K attributed to slow spin fluctuations that could indicate the emergence of antiferromagnetic domain wall motion.

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