

Abstract Submitted  
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**Mapping electronic ordering in chromium in 3D with x-ray microdiffraction**<sup>1</sup> RUQING XU, Argonne Natl Lab — In the antiferromagnetic state of chromium, electrons form spin-density waves and charge-density waves with wave vector along one of the lattice cubic axes; the spontaneous ordering of the electrons breaks the lattice symmetry and creates domains within a single crystal. We report the first 3-dimensional mapping of charge-density wave domains in bulk polycrystalline chromium samples using differential-aperture x-ray microdiffraction at the Advanced Photon Source.

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