

Abstract Submitted
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Fluctuations of CDW order at a quantum phase transition YEJUN FENG, J. VAN WEZEL, S. HARAVIFARD, G. SRAJER, J. MITCHELL, Argonne National Lab, JIYANG WANG, T.F. ROSENBAUM, University of Chicago, R. JARAMILLO, Harvard University, Z.-A. XU, Zhejiang University, Y. LIU, Penn State University — 2H-NbSe₂ is the archetypical two-dimensional charge-density-wave system. Using x-ray diffraction in a diamond anvil cell, we track the evolution of the CDW order towards the buried quantum critical point inside the superconducting phase. We observe a pressure-dependent nesting vector as well as fluctuation broadening, and compare these results to the behavior of the three-dimensional spin-density-wave system, Chromium, at its quantum critical point.

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