

Abstract Submitted  
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**Pressure-Induced** **Quantum**  
**Criticality in Cr**<sup>1</sup> RAFAEL JARAMILLO, Y. FENG, T.F. ROSENBAUM, J.J.  
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anvil cell high-pressure techniques are used in concert with high resolution magnetic  
x-ray diffraction to probe the quantum critical regime of the elemental itinerant  
antiferromagnet Chromium. The antiferromagnetic order is suppressed by an ap-  
plied pressure of  $\sim 6$  GPa in the zero-temperature limit. We perform high-resolution  
measurements of both the charge- and spin-density-wave order parameters as the  
system is tuned through this magnetic phase transition. The results illustrate the ef-  
fects of quantum fluctuations and enhanced dimensionality on a canonical correlated  
electron system.

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