

Abstract Submitted
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Pulsed Field Studies of Unconventional Magnetoresistance in Q1D Conductors HARUKAZU YOSHINO¹, Osaka City University and Boston College, ZEYNEL BAYINDIR, JOYDEEP ROY, BEN SHAW, HEON-ICK HA², Boston College, ANDREI LEBED, University of Arizona, M.J. NAUGHTON³, Boston College — We built a single-axis sample rotator for use in a 45T pulsed magnetic field system. We used this to measure the magnetoresistance of the quasi-one dimensional organic conductor $(\text{TMTSF})_2\text{ClO}_4$ in the interference-commensurate “L-N” angle regime. We were able to obtain the angle-dependent magnetoresistance and observe the L-N oscillations. We were further able to study the field-dependence of the magnetoresistance at very high field, thus extending the work of Ha, *et al.*, to several times higher field. In our talk, we compare the recent theory of Lebed, which suggests unconventional B -dependence at various resistance maxima and minima (vs. angle), associated with unusual dimensional crossovers, to our pulsed field data.

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