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## **(I) Giant c-axis Nonlinear Anomalous Hall Effect**

*Tuesday 8 June 2021 12:00 (30 minutes)*

We report the observation of a giant c-axis nonlinear anomalous Hall effect in the non-centrosymmetric Td phase of MoTe<sub>2</sub> without intrinsic magnetic order. Here, application of an in-plane current generates a Hall field perpendicular to the layers. By measuring samples across different thicknesses and temperatures, we find that the nonlinear susceptibility obeys a universal scaling with sample conductivity that is indicative of extrinsic scattering mechanisms. Application of higher bias yields an extremely large anomalous Hall ratio and conductivity.

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