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## **Effective Theory of the Disordered Weyl Metal**

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### Abstract:

In disordered Weyl semimetals, mechanisms of topological origin lead to protection against Anderson localization, and at the same time to unconventional types of electromagnetic response — the anomalous Hall, and chiral magnetic effect. In this talk, we will discuss the physics of these phenomena at large length scales which are beyond the scope of perturbative approaches. We show how an interplay of symmetry breaking and the chiral anomaly stabilizes a nonlinear sigma model containing a Chern-Simons term. The Chern-Simons action remains largely unaffected by disorder, i.e. information on the chirality of the system remains visible even at large length scales, where it generates transport phenomena not observable in conventional metals.