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## Nonlinear Optics in 2D LTMDs

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### Abstract

2D layered materials have been subject of intense research after the discovery of graphene. Beyond that, layered transition metal dichalcogenides present interesting properties such as semiconducting behavior. In this talk I shall present results of nonlinear optics studies in semiconducting, semimetallic, and metallic suspensions of 2D LTMDs in the femtosecond and millisecond time response regimes.. the origins of the nonlinearities will be explained