

Abstract Submitted  
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**Multichannel quantum-defect theory for anisotropic interactions<sup>1</sup>**

NINGYI DU, BO GAO, Univ of Toledo — We present a general formulation of multichannel quantum-defect theory (MQDT) for anisotropic long-range potentials. The theory greatly expands the types of interactions, including complex interactions involving molecules, that can be treated and understood systematically. It promotes MQDT into a general theory of interactions and establishes a foundation for new classes of quantum theories for chemical reactions, few-body systems, and many-body systems.

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