## Abstract Submitted for the DAMOP10 Meeting of The American Physical Society

Novel cooperative effects in dipolar media<sup>1</sup> SUSANNE YELIN, ELENA KUZNETSOVA, University of Connecticut — Recent developments in formalism and application of superradiance are discussed. We present cooperative effects in novel systems such as nuclear spins in diamond NV centers or quantum dots and in novel applications such as cooling/manipulation of vibrational decay in ultracold molecules.

<sup>1</sup>Support from NSF is acknowledged.

Susanne Yelin University of Connecticut

Date submitted: 22 Jan 2010 Electronic form version 1.4