

DAMOP10-2010-000819

Abstract for an Invited Paper
for the DAMOP10 Meeting of
the American Physical Society

Strongly correlated phases with moderately strong dipole moments

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Ultracold polar molecules offer the possibility of exploring quantum gases with interparticle interactions that are long-range, and spatially anisotropic. While several novel many-body phenomena have been predicted to occur for strong dipole-dipole interactions, in this talk we focus on strongly correlated phases which can be obtained with comparatively moderate strengths of interactions, such as those found with KRb molecules.