

Abstract Submitted  
for the MAR14 Meeting of  
The American Physical Society

**Density of states of Frenkel excitons in strongly disordered two-dimensional systems** ROBERT SIEMANN, Math Department, University of Wisconsin-Whitewater, ABDELKRIM BOUKAHIL, Physics Department, University of Wisconsin-Whitewater — We present the calculation of the density of states of Frenkel excitons in strongly disordered two-dimensional systems. A random distribution of transition frequencies with variance  $\sigma^2$  characterizes the disorder. The Coherent Potential Approximation (CPA) calculations show a strong dependence of the density of states (DOS) on the disorder parameter  $\sigma$ .

Robert Siemann  
Math Department, University of Wisconsin-Whitewater

Date submitted: 14 Nov 2013

Electronic form version 1.4