1057-35-101   **M. Burak Erdogan** and **William R. Green*** (`wgreen4@uiuc.edu`), Dept. of Mathematics
University of Illinois, 1409 W. Green St., Urbana, IL 61801. *Dispersive Estimates for the Schrödinger Equation for $C^{(n-3)/2}$ Potentials in Odd Dimensions.*

In this talk we discuss $L^1 \to L^\infty$ dispersive estimates for the linear Schrodinger equation on $\mathbb{R}^n$ with a real-valued potential V. In light of the results of Goldberg and Visan, for $n > 3$ dispersive estimates may fail if the potential is not in $C^{(n-3)/2}$. We obtain dispersive estimates under the optimal smoothness condition on the potential, $V \in C^{(n-3)/2}$, in dimensions five and seven. (Received January 13, 2010)