

1106-34-2571      **Ngoc Do\*** (dothanh@math.tamu.edu), **Peter Kuchment** and **Frank Sottile**. *On the genericity of non-degenerate spectral edges*. Preliminary report.

It is widely believed in the mathematics and physics community that extrema of dispersion relations of generic periodic Schrödinger operators are non-degenerate. (Here by non-degeneracy we mean extrema having non-degenerate Hessian.) Unfortunately, the conjecture remains unproven. The most advanced result, obtained by F. Klopp and J. Ralston, proves that each band edge of a generic periodic Schrödinger operator is an extremal value of just a single band function. In this talk, we will present a study of the conjecture for a class of periodic differential operators on graphs. (Received September 16, 2014)