1154-81-863 **Tori Hudgins*** (tori_hudgins@baylor.edu), One Bear Place #97328, Waco, TX 76798, and **Jon Harrison**. *The Characteristic Polynomial of a Quantum Binary Graph.* Preliminary report.

Quantum graphs provide a simple model of quantum mechanics in systems with complex geometry and can be used to study quantum chaos. A quantum graph has an associated unitary quantum evolution operator. We study the coefficients of the characteristic polynomial of the quantum evolution operator for families of binary graphs and their generalizations. The Bohigas-Giannoni-Schmit conjecture suggests spectral statistics of generic quantum graphs are modeled by those of random matrices, in the limit of large graphs. However, we show that, for families of binary graphs, there is a uniform deviation from random matrix behavior in the statistics of coefficients of the characteristic polynomial. (Received September 13, 2019)