1138-60-14 **Mei Yin*** (`mei.yin@du.edu`), **Alessandro Rinaldo** and **Sukhada Fadnavis**. *Asymptotic quantization of exponential random graphs.*

We describe the asymptotic properties of the edge-triangle exponential random graph model as the natural parameters diverge along straight lines. We show that as we continuously vary the slopes of these lines, a typical graph drawn from this model exhibits quantized behavior, jumping from one complete multipartite graph to another, and the jumps happen precisely at the normal lines of a polyhedral set with infinitely many facets. As a result, we provide a complete description of all asymptotic extremal behaviors of the model. (Received December 25, 2017)