1145-60-1981 **Mela Hardin*** (melahardin@asu.edu) and **Nicolas Lanchier**. *Opinion Dynamics with Confidence Threshold.* Preliminary report.

Interacting particle systems is a field of probability theory devoted to the rigorous analysis of certain types of models that arise in other fields such as physics, biology, and economics. One popular example of such systems is the voter model for the dynamics of opinions. The general opinion model discussed in this talk is a variant of the voter model that views the set of opinions as a general connected graph, $G = (V, E)$, with vertices as opinions. Individuals with these opinions lie on a spatial connected graph, $\mathcal{G} = (\mathcal{V}, \mathcal{E})$, with vertices as individuals. Pairs of neighbors interact at rate one unless the geodesic distance between their opinions exceeds some confidence threshold $\tau \in \mathbb{N}$. Each interaction results in the opinion of one of the two individuals moving one step towards the opinion of the other individual. The main question about the general opinion model on infinite graphs is whether the system fluctuates and clusters, leading to a global consensus, or fixates in a fragmented configuration. When the underlying spatial structure is a finite connected graph, the process fixates after an almost surely finite time T, and we study lower bounds for the probability that, at this time, the system reaches a consensus. (Received September 24, 2018)