

1106-AD-374

**Nicolas Lanchier\*** (nlanchie@asu.edu), School of Mathematics, Arizona State University, Tempe, AZ 85287. *Consensus and Disagreements in the Axelrod Model for the Dissemination of Culture.*

The Axelrod model is a spatial stochastic model for the dynamics of cultures which includes two important social factors: social influence, the tendency of individuals to become more similar when they interact, and homophily, the tendency of individuals to interact more frequently with individuals who are more similar. Each individual is characterized by a set of cultural features, and pairs of neighbors interact at a rate proportional to the number of features they share, which results in the interacting pair having one more cultural feature in common. This model has been extensively studied during the past ten years based on numerical simulations while there is a lack of analytical results. This talk gives rigorous fluctuation and fixation results for the one-dimensional system that sometimes confirm sometimes refute some of the conjectures formulated by statistical physicists and social scientists. (Received August 26, 2014)