1108-60-180   **Idan Perl** and **Arnab Sen***, arnab@math.umn.edu, and **Ariel Yadin**. *Extinction Window of Mean Field Branching Annihilating Random Walk.*

We consider a model of growing population that competes for resources. The dynamics takes place on a complete graph on n vertices where at each time step all existing particles reproduce and the offsprings randomly move to neighboring sites. However, if any site has more than one offspring, then all the particles on that site are annihilated.

We examine the extinction window of this model, that is, how long it takes the population to go extinct, once it has been conditioned to do so. We show that in the supercritical regime although the population tends to survive for exponential time on average, the extinction window is logarithmic. This is a non-monotone model, which makes the analysis difficult. (Received January 11, 2015)