1035-60-962   **Eline Boghaert*** (`elineboghaert@gmail.com`), **Sandhya Ramakrishnan** (`sandhyar@mit.edu`) and **Evan Fisher** (`fishere@lafayette.edu`). *A probability model in population genetics.* Preliminary report.

Our research focused on core probabilistic models in population genetics that are used to study the evolution of the distribution of alleles in a population over many generations. In particular, we studied the Wright-Fisher model and coalescent process along with some important characteristics associated with these, such as the expected time to fixation of an allele and the expected time to the most recent common ancestor. In this talk we discuss the large population approximations to these and our work towards finding exact solutions (still unsolved) for small and moderate sized populations. (Received September 17, 2007)