

**GENEALOGICAL THEORY FOR A RANDOM MATING  
POPULATION WITH TWO SEXES AND AN AUTOSOMAL LOCUS**

by

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**ABSTRACT**

Consider a random mating population that has  $N_m$  males and  $N_f$  females in each generation. Let us assume that at time 0 a random sample of  $n$  copies of a gene is taken from this population. Then, for a model introduced by Wright [9], it is possible to obtain a generalization of the haploid theory of genealogical processes developed by Felsenstein [8]. It is conjectured that this holds generally, regardless of the effective population size, if  $n \ll \min(N_m, N_f)$ .