



The University of Chicago  
Department of Statistics

Seminar Series

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**YUN S. SONG**

Departments of Electrical Engineering  
and Computer Sciences, and Statistics  
University of California, Berkeley

**A Universal Sampling Formula in Population Genetics**

**MONDAY, November 30, 2009, at 4:00 PM**  
**133 Eckhart Hall, 5734 S. University Avenue**

*Refreshments following the seminar in Eckhart 110.*

**ABSTRACT**

The probability of observing a sample of DNA sequences plays a fundamental role in various applications in population genetics, but unfortunately closed-form formulas are generally very difficult to obtain. In particular, when recombination is involved, obtaining an analytic formula for the sampling distribution has so far remained an intractable open problem, and recent research has focused on developing Monte Carlo methods, such as MCMC or importance sampling. In this talk, I will describe a technique based on asymptotic analysis for obtaining a closed-form sampling formula, and discuss its accuracy and universality.

Joint work with Paul Jenkins (UC Berkeley).