



**BIOINFORMATICS 2015 FALL SEMINAR SERIES**

Hosted by: Department of Computer and Information Sciences,  
Department of Electrical and Computer Engineering &  
Center for Bioinformatics and Computational Biology  
<http://bioinformatics.udel.edu/Seminars/Current>

**MONDAY, December 7, 2015**

**3:30pm**

**DBI Room 102**

**First Passage Times and Relaxation Times  
in Biological Stochastic Processes**

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**ABSTRACT:** In the context of a Markov chain with a unique stationary distribution, we introduce the concept of the relaxation time for a particular state, as well as that of the first passage time to that state. We obtain an exact relationship between these two time scales and the probability of the state in the stationary distribution. We end by discussing applications of this relationship to protein folding and, potentially, to gene expression noise.