



and



cordially invite you to a

## DySoC/NIMBioS Interdisciplinary Seminar

with

**Dr. Sergey Gavrilets**

on

***“Modeling the evolutionary origins  
and dynamics of social complexity  
”***

**Monday, October 15, 2018**

3:30-5 p.m.

*Reception & refreshments at 3 p.m.*

Hallam Auditorium, Room 206  
1122 Volunteer Boulevard



Dr. Sergey Gavrilets is the Director of the Center for the Dynamics of Social Complexity (DySoC) and a Distinguished Professor of Ecology & Evolutionary Biology and Mathematics at the University of Tennessee, Knoxville. He is also the Associate Director for Scientific Activities at NIMBioS. A leading researcher in theoretical and computational evolutionary biology, Gavrilets uses mathematical models to study complex evolutionary processes. In recent years, his research interests have mostly concentrated on human origins and the evolution of social complexity, major evolutionary transitions, speciation and adaptive radiation, sexual conflict, and holey fitness landscapes. Gavrilets received his PhD in Physics and Mathematics from Moscow State University in 1987 and joined the UT faculty in 1995.

**Abstract:** It is now well recognized that understanding modern human behavior, psychology, culture, and certain economic and political processes is hardly possible without also considering factors and processes that were shaping our recent evolution. Deciphering the problems of human origins and subsequent social and cultural evolution requires a concerted effort of researchers from a diverse set of disciplines including biology, anthropology, psychology, economics, and history as well as mathematics and computational science. If we, as scientists, are successful in this endeavor, the societal impact will be enormous. I will illustrate some of my recent modeling work in this area. I will consider the collective action problem in heterogeneous groups, effects of identify fusion on self-sacrifice, the evolution of social norm internalization, and the joint dynamics of power inequality and cooperation.