

and



present an Interdisciplinary Seminar with

## DR. SIMON CARRIGNON

NIMBioS/DySoC Postdoctoral Fellow

## Content-dependent biases in social learning strategies: A multiscale approach



3:30 PM\*, JANUARY 14, 2020

Hallam Auditorium, Room 206@NIMBioS · 1122 Volunteer Blvd. \*Reception & refreshments at 3 pm

Abstract: The content of what we learn shapes the evolution of human culture and society. It does so by biasing our decisions and the way we receive and transmit cultural information. Detecting the impact of such bias on large scale and historical changes is a challenge as such processes involve local interactions that can be influenced by many other factors, from random unpredictable events to environmental ones. In this presentation, I propose a way to quantify the influence of content-dependent biases in cases of large scale cultural changes, using a combination of Agent-Based Models and Bayesian Inference. I will first present a theoretical exploration of this impact and then describe two case studies: one that explores the role of social transmission biases in Twitter and a second that focuses on changes in tableware use in the Roman Empire (200BC - AD300). This presentation will illustrate how the knowledge we have about local decision-making processes, such as social learning strategies, can be used to understand large scale changes in scenarios implying very different geographical and temporal areas. The presentation also exemplifies how the approach can help us to answer archaeological and historical questions, as well as to shed new light on the exploration of actual and potentially crucial social changes.

Bio: Dr. Simon Carrignon is a postdoctoral fellow with NIMBioS and the Center for the Dynamics of Social Complexity working with DySoC faculty members Sergey Gavrilets, Alex Bentley, and Suzie Allard to establish new transdisciplinary collaborations. Carrignon earned a Ph.D. in Biomedicine from Universitat Pompeu Fabra, Spain.



