EMORY UNIVERSITY
DEPARTMENT OF ANTHROPOLOGY

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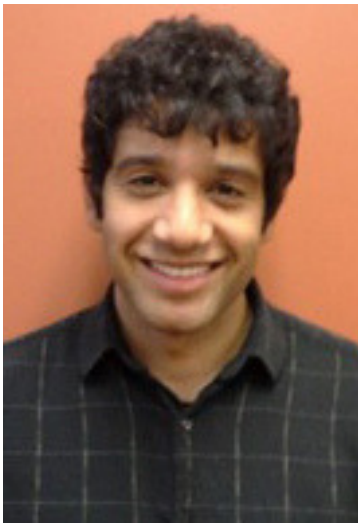
ANT 206
4:00

MICHAEL DEGIORGIO

Uncovering Footprints of Adaptation from Ancient and Modern Genomes

The study of genomic variation is fundamental to population and evolutionary genetics, providing a basis for understanding differences among individuals, populations, and species. Because a number of adaptive and non-adaptive processes work in concert to shape genomic variation, strategic study designs and powerful statistical approaches are often needed to tease apart these forces. In this talk, Dr. DeGiorgio will focus on the development and application of statistical approaches for identifying adaptive processes that shaped the current distribution of genomic variation within and across populations, focusing on a set of collaborative studies that analyzed genomic data from ancient and living Native Americans from the Pacific Northwest. He also will introduce several new statistical methods for detecting and classifying genomic targets of natural selection that contribute to the current state-of-the-art in evolutionary genomics.



Michael DeGiorgio received his Ph.D. in Bioinformatics from the University of Michigan, studying with Noah Rosenberg. He was a NSF Postdoctoral Fellow with Rasmus Nielsen at the University of California Berkeley before joining the faculty of the Departments of Biology and Statistics and the Institute for CyberScience at Pennsylvania State University. He is an Alfred P. Sloan Research Fellow in Computational and Evolutionary Molecular Biology.