



## **Center for Soft Matter and Biological Physics**

### **Discussion Meeting**

**Austin Ada Warren**

**(Physics, Virginia Tech)**

### **“Nonlinear Dynamics and Chaos: Lorenza System and 1-D Maps”**

**Friday, July 19, 2019**

**1:30pm - 2:30pm**

**304 Robeson Hall**

Despite being entirely predictable in principle, many deterministic systems display extremely complicated, apparently random long term behavior. This chaotic behavior appears in many practical everyday problems, from understanding how populations grow to predicting tomorrow's weather. In this talk, I'll be discussing what we mean when we talk about chaos and what it looks like in practice. In particular, we'll be looking at how chaos emerges from order in two well-known systems: the continuous Lorenz system and the discrete logistic map.

