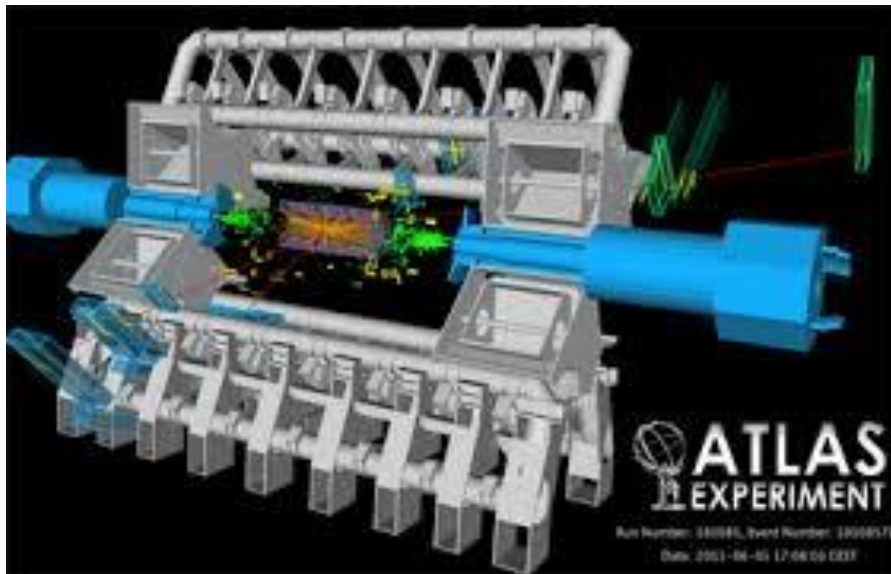


# PHYSICS COLLOQUIUM



**Dr. Jason Veatch**  
**CSU East Bay**

## **Particle Physics at CERN**

### **Abstract**

The Standard Model (SM) of particle physics is one of the most successful scientific theories in the history of humankind. It describes the fundamental constituents of the universe and their interactions that define the world around us. The final missing piece of the SM, the Higgs boson, was discovered in 2012 at Large Hadron Collider (LHC) at CERN just outside of Geneva, Switzerland. Large teams of physicists continue analyzing the data collected from the LHC in search of additional insights into the nature of the universe and to answer questions such as the identity of dark matter and how to unify gravity with the other fundamental forces. This talk gives an overview of particle physics theory and experiment, an inside look at career paths in particle physics, and some of the cutting-edge physics analyses being done at the LHC that can provide insights into the future of the universe.

**3:00 p.m. - 4:30 pm, Friday, October 14<sup>th</sup>,**  
**In-Person: McLane 162**