PHYSICS
ARTS AND SCIENCE

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students

APPLICATION DEADLINE: 03/01/2023

PROJECT TITLE: <u>Analyzing High Energy Physics Data from the LHCb Experiment</u>

Michael D Sokoloff
Room 411
Geology/Physics Building
mike.sokoloff@uc.edu

Project Description

The student will analyze data from the LHCb experiment at CERN. Depending on the details of the project (to be negotiated) the student will learn some particle physics and how to use either the ROOT framework (C++) or scientific Python. Possible projects include the study of decays of particles containing heavy quarks and studies of algorithms used to reconstruct and select events as part of data acquisition. We are looking for a student who has completed at least the usual sophomore level physics courses, but will also consider very well motivated students with excellent performance in freshman physics and math courses. No prior experience with computer programming is necessary -- the student will be able to master all the programming tools required to succeed.