Summer 2020 Intern in Plasma Physics
at the University of Michigan
Ann Arbor, MI

APPLICATION DEADLINE: Monday, March 23, at 11:59pm ET

This is a Paid Career and Civic Engagement Center Partner Internship. The selected student will participate in the Beyond Bryn Mawr Summer Internship Program.

(1) submitting a one-page resume and cover letter through this Handshake listing, and
(2) completing the Summer Funding Partners Application Form

Carolyn Kuranz, Bryn Mawr College ’01
University of Michigan
Center for Laboratory Astrophysics, Director
Project Dates: May – August

The Center for Laboratory Astrophysics (CLA) models and creates hot, dense plasma to study the physical mechanisms that matter for astrophysical phenomena including supernova explosions, supernova remnant evolution, and the collisions of shock waves with molecular clouds. Our work involves both experiments and theory of astrophysical systems and plasmas. We model, design and create plasma experiments, analyze data and develop new diagnostic techniques.

Internship students will be assigned a modeling, diagnostic, or data analysis project to be completed over the course of the summer depending on interest and mutual goals. Students are expected to work 30 - 40 hours per week for 8-12 weeks with a minimum of 8 weeks and a pay rate of $13/hr. Summer housing will be available. Travel expenses will be paid by Career & Civic Engagement Center. All students will become familiar with experimental and theoretical background and methods. Specifically, students with a data analysis project will be analyzing data using MATLAB (Prior experience with MATLAB is useful, but not required) and provide detailed records of results and methods. Diagnostic projects will likely be undertaken with a group of students to develop and test diagnostic methods and detail results. Modeling projects will involve learning to run 1D radiation hydrodynamics codes, analyze the data, and present results in a meaningful way. Your intellectual and career interests will be factored into the design of your specific project to the best of my ability.
In addition, I will assist students in meeting with faculty members at the University of Michigan in Physics and Engineering depending on student interest. This internship opportunity would be ideal for a Bryn Mawr rising junior or senior physics or STEM major with an interest in attending graduate school.

About Professor Carolyn Kuranz
I graduated from Bryn Mawr in 2002 with an A.B. in Physics. Upon graduation, I entered the PhD program in Applied Physics at the University of Michigan where I studied experimental plasma physics. I graduated in 2009 and became a member of the Research Faculty where, in addition, to my own research I advise graduate and undergraduate research. I am currently an Associate Professor and the Director of Center for Laboratory Astrophysics. CLA consists of 2 other faculty members, 2 postdoctoral fellows, 10 graduate students and 10 – 15 undergraduates working on multiple projects within the Center.