Summer Research Experience for Science & Math Teacher in the Gamma-Ray Astrophysics Research Group

Application Deadline ~ Thursday, June 15, 2017

Description
This 5 or 6-week summer research internship experience will immerse one middle/high school science teacher in a research project in the field of astrophysics, working with Dr. Petra Huentemeyer, associate professor in the Department of Physics at Michigan Technological University. The project is funded with a National Science Foundation (NSF) to investigate gamma-ray emission in our galaxy (e.g. from the Milky Way) and to study super nova remnants, pulsar wind nebulae, and binary systems at highest particle energies using data from the High-Altitude Water Cherenkov (HAWC) Gamma-Ray Observatory. The selected teacher will work with her research group on the analysis of HAWC data. The program will include instruction on computationally-based research with large data sets from a state-of-the-art astrophysical telescope and the design of age-appropriate, content-rich, inquiry-focused learning activities for middle or high school students.

Logistics & Benefits
This summer research internship will take place during the summer of 2017 at Michigan Technological University in Houghton, MI. The specific duration and exact start/end dates are negotiable, with a start date at the beginning of July encouraged. The teacher will receive a stipend of $700 per week (30-40 hours per week). If the teacher is from out of the local area, support for accommodations will be provided. Funding is also available if the teacher is willing to present their experience and/or newly developed curriculum at a professional scientific conference (i.e. American Physical Society) or professional education conference (i.e. National Science Teachers Association, American Association of Physics Teachers, etc.). During the school year, she/he will work with Dr. Huentemeyer on secondary curriculum development. For more information on Dr. Huentemeyer’s research, please visit the homepage of the HAWC experiment at: http://www.hawc-observatory.org, her homepage at: https://www.mtu.edu/physics/department/faculty/huentemeyer/, or send an email to: petra@mtu.edu.
TO APPLY – complete the information below and the questions on the next page.

Name: __________________________________________________________________________
                    First                          Last
E-mail: __________________________________________________

Home Address: _________________________________________________________________

                        Street       City       State               Zip Code

Work Phone: (____)_________
Fax: (____)_________
Home/Cell Phone: (____)_________

Place of Employment: __________________________________________________________

Employer’s Address: __________________________________________________________

                        Street       City       State               Zip Code

Subject Areas Taught: __________________________________________________________

Grades Taught: ________________

Degree(s) Earned/Areas of Teacher Certification:

____________________________________________________________________________

Please return all pages of your completed application by Wednesday, May 31, 2017 to:
Dr. Petra Huentemeyer
Department of Physics
Michigan Technological University
1400 Townsend Dr.,
Houghton, MI  49931
Tel:  906-487-1229
Fax:  906-487-2933
Email: petra@mtu.edu
Please respond to the following questions. (Use additional sheets of paper, if necessary)

1. Do you have experience working with amateur astronomy/astronomical data analysis?

2. Do you have programming experience? In what language(s).

3. How will working on a research project like this one benefit your teaching/curriculum development?