

# Four Undergraduate Research Positions in Gravitational Physics for Summer 2018

## HSU Department of Physics & Astronomy

**Description:** Four undergraduate research positions are available in Gravitational Physics research for the summer of 2018. The research will involve investigations into the fundamental nature of the gravitational force at sub-millimeter distance scales and other aspects of gravity. Students will perform independent research in collaboration with other students under the supervision of Dr. Hoyle or at other institutions (see below). The research will involve hands-on laboratory work including: mechanical, electrical, and optical design and implementation, software programming, data acquisition and analysis, presentation of results, etc. This will be a valuable experience for students wishing to enter graduate school or the technical workforce.

- 2 positions will involve research performed at HSU.
- 1 position will involve research carried out with the Gravitational Research group at the University of Washington in Seattle: <http://www.npl.washington.edu/eotwash/>. Travel funds will be provided to go to/from Seattle, *but the successful candidate will be responsible for arranging his or her own accommodations for the summer.*
- 1 position will involve research to be carried out with Prof. Ricardo Decca on a project at Indiana University/Purdue University of Indianapolis (IUPUI) to measure the Newtonian constant,  $G$ . Travel *AND* lodging funds will be provided for this position.

### **Position Requirements**

The successful applicants

- must be current HSU students during the 2017-2018 academic year;
- must be continuing students in Fall 2018;
- must have completed at least one unit of *PHYX 495: Undergraduate Research* under the supervision of Dr. Hoyle before summer 2018;
- must have completed PHYX 111 before summer 2018;
- must submit a 2-3 page research proposal to Dr. Hoyle during the spring semester of 2018 describing the expected work to be carried out over the summer;
- must have a strong desire to develop hands-on laboratory skills;
- must be independent and self-motivated.

### **Preferred Qualifications**

- Physics major in good academic standing
- Completion of PHYX 315 before summer 2018

### **Stipends & Travel**

- For the HSU positions: \$4500.00 for 10 weeks of work, plus travel costs to present work at applicable regional and/or national conferences.
- For the Seattle position: \$4500.00 for 10 weeks of work, plus travel costs to/from Seattle.
- For the IUPUI position: \$5000.00 for 10 weeks of work plus travel *and* lodging costs to/from Indianapolis, as well as travel funds to present work at applicable regional and/or national conferences.

### **Selection**

Candidates will be selected based on academic record and preparedness, laboratory skills, research proposal, and motivation/enthusiasm.

**Please contact Dr. Hoyle in the Department of Physics & Astronomy: 707-826-3235 or [cdh33@humboldt.edu](mailto:cdh33@humboldt.edu) for further information.**