The NASA Earth and Space Sciences Fellowships (NESSF) announced that University of Hawaii at Manoa doctoral candidate in physics and astronomy Kathryn Whitman has received a graduate fellowship in heliophysics. Only seven students received a fellowship from the heliophysics division nationwide. The NESSF fellowship awards Whitman and her advisor, Dr. Veronica Bindi, with a $30,000 yearly stipend that is renewable for up to three years.

The NESSF award will fund Whitman’s proposal “Multi-Spacecraft Studies of the Highest Energy SEPs with AMS-02”, which is the core of her thesis work. Under the guidance of Dr. Bindi, Whitman will use the Alpha Magnetic Spectrometer (AMS-02) a high-energy particle detector mounted on the International Space Station (ISS), to study energetic particles from the sun. AMS-02 provides a unique contribution to the field of solar energetic particles (SEPs), because it measures these particles in an energy range that is not well measured by other satellites. Whitman will combine data from AMS-02 with lower energy NASA and NOAA satellites to build a complete picture of SEPs over their full energy range for the first time. NASA is particularly interested in improved measurements of SEPs, because they are a radiation hazard for satellites, astronauts on the ISS, and explorers on long-term manned space missions.

Concerning Whitman’s selection, Department Chairman Professor Pui Lam said “We are very proud of Katie for receiving such a highly competitive award. She definitely deserves the recognition.” Whitman’s thesis advisor, Dr. Bindi, adds “I am really proud of Katie! She has made amazing progress in her research and this NASA fellowship is a proof of her hard work and dedication. She will do a great job!”

The NASA NESSF is awarded on a competitive basis in the fields of Earth Science, Astrophysics, Planetary Science, and Heliophysics. The awards in each division are evaluated according to the scientific merit of the proposed research, the relevance of the proposed research to NASA’s objectives in Earth or space science, and academic excellence. The purpose of the NESSF is to ensure continued training of a highly qualified workforce in disciplines required to achieve NASA’s scientific goals.

Recently, Whitman spent two months over the summer at CERN, the particle accelerator facility located near Geneva, Switzerland, with her advisor and research group where she participated in AMS-02 analysis meetings and took shifts monitoring AMS-02 in space from the Payload Operation Control Center.

Whitman and her husband are expecting their first child at the end of December 2015.