

Graduate research position: satellite remote sensing of the U.S. Corn Belt.

NASA's Soil Moisture Active Passive (SMAP) microwave remote sensing satellite was launched in January, 2015.

Since 2010 the European Space Agency (ESA) has operated the Soil Moisture and Ocean Salinity (SMOS) satellite.

SMAP and SMOS observations of soil moisture will improve weather and climate prediction.

We need a graduate student to validate satellite observations of soil moisture, and to help create new satellite products relevant to crop yield in the U.S. Corn Belt. The student will:

be mentored by scientists at Iowa State University, the United States Department of Agriculture (USDA), and other institutions within the U.S. and European remote sensing communities;

receive interdisciplinary academic training;

make presentations at national and international technical conferences;

publish in top research journals; and

assist in undergraduate teaching.

Qualifications:

excellent quantitative skills and training in physical science that is often associated with an undergraduate degree in a physical science discipline (e.g., meteorology, physics, chemistry, geology, environmental science) or any engineering discipline;

excellent communication skills; and

the ability to work independently.

Funding: tuition, stipend, and benefits provided by a research assistantship.

Curriculum: agricultural meteorology (whose students are eligible for annual travel or equipment awards of up to \$2000), electrical engineering, or environmental science. These programs draw upon Iowa State's internationally-respected agronomy, atmospheric science, engineering, and natural resources programs.

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