



National Aeronautics and Space Administration: Supporting Research **at Michigan**

The University of Michigan (U-M) is one of the top ten university recipients of competitively-awarded grants from NASA. Funding from this agency allows U-M to better understand earth and answer fundamental questions about the universe.

With funds from NASA, U-M manages the Michigan Space Grant Consortium, part of a national network seeking to expand opportunities for students of all ages to pursue science, technology, engineering and mathematics education. NASA funding supports innovation and technology development to advance our space exploration capabilities and secures our national security.

\$29M

Research Expenditures
in FY2018

381 Active Projects

3.4%
of Overall

U-M Federal
Support

U-M research projects supported by
NASA annually involve about:

142 Faculty
37 Postdoctoral Fellows
61 Graduate Students

Computer Processing in Deep Space

The radiation that exists in space can be incredibly disruptive to traditional computers and electronic circuits, interfering with missions and critical systems. U-M Professor Ron Dreslinski is developing a new computing system that is radiation-hardened and able to withstand the depths of space without sacrificing any computing power. Enhanced functions gained from faster processing include onboard autonomy, astronaut assistance, and data processing.

Hurricane Tracker

A \$151 million NASA mission led by U-M researchers has provided scientists with the ability to see inside hurricanes as never before. The Cyclone Global Navigation Satellite System, or CYGNSS, is designed to improve forecasts of hurricane intensity and storm surge, the swells of water that do the most damage when hurricanes make landfall. The constellation of eight hurricane-tracking microsattelites makes frequent measurements of ocean surface winds in the tropics, with a primary objective of monitoring the location, intensity, size and development of tropical cyclones.

Parker Solar Probe

Launched in August 2018, the Parker Solar Probe is currently on a journey to the Sun in an effort to help us better understand space-weather events. Such events can have devastating impacts on Earth, such as overwhelming power grids and disrupting radio communications. The NASA mission will last almost seven years and the Probe will become the closest man-made object to the Sun. U-M Professor Justin Kasper serves as a principal investigator for the SWEAP Investigation, one of five scientific investigations for Parker Solar Probe. SWEAP is a set of instruments that will collect samples of the sun's atmosphere.