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PRECIPITATION MEASUREMENT MISSIONS (PMM) RESEARCH OPPORTUNITIES IN THE SPACE AND EARTH SCIENCES (ROSES) (email to: walt.petersen@nasa.gov/256-961-7408): Walt Petersen (ZP11) won a PMM ROSES award as Principle Investigator for the proposal "Validation of GPM Precipitation Retrieval Algorithms Across the Precipitation Continuum" and is a Co-Investigator on a selected proposal by Pierre-Emmanuel Kirstetter, University of Oklahoma entitled "A Research Framework to Bridge the Global Precipitation Measurement (GPM) Level II and Level III using Multi-Radar/Multi-Sensor". Dan Cecil (ZP11) also won a PMM award for his proposal "Better Understanding Global Precipitation Measurement (GPM) Radiometer Measurements Using Ground-Based Radar".

ADVANCED MICROWAVE PRECIPITATION RADIOMETER (AMPR) PARTICIPATION (email to: walt.petersen@nasa.gov/256-961-7408): The MSFC AMPR participated in the first triple aircraft under flight of the Global Precipitation Measurement (GPM) mission Core satellite platform during the GPM Olympic Mountains Experiment (OLYMPEX) field campaign on December 3, 2015. The airborne portion of the experiment concludes in December. The ground validation sampling of a complex precipitation system over the Olympic Mountains continues until February 2016.

MSFC PRESENTATIONS AT THE 2015 AMERICAN GEOPHYSICAL UNION ANNUAL MEETING (email to: michael.goodman@nasa.gov/256-961-7890): The following oral presentations and posters were presented at the 2015 Fall Meeting of the American Geophysical Union in San Francisco on December 14-18, 2015. There were seven oral presentations and twenty-five posters.

Oral

- Albrecht, Rachel (Universidade de Sao Paulo), Steve Goodman (NOAA-NESDIS), Dennis Buechler (ZP11-UAH), Richard Blakeslee (ZP11), and Hugh Christian (UAH), *Where are the lightning hotspots on Earth?*
- Burks, Jason (ZP11), Andrew Molthan (ZP11), Lori Schultz (ZP11-UAH), Kevin McGrath/ZP11-Jacobs), Jordan Bell (ZP11-UAH), Tony Cole (ZP11-UAH), and Kelsey Angle/NWS, *Applications of Earth Remote Sensing for Identifying Tornado and Severe Weather Damage*
- Diaz, Ernesto (JPL), H. Michael Goodman (ZP10), David Green (NASA HQ), Dalia Kirschbaum (GSFC), Andrew Molthan (ZP11), Timothy Stough (JPL), and Frank Webb (JPL), *NASA Response to the Nepal Earthquake*
- Limaye, Ashutosh (ZP11), Faith Mithieu (RCMRD), Deo Gurung (ICIMOD), Clay Blankenship (ZP11-USRA), William Crosson (ZP11-USRA), Eric Anderson (ZP11-UAH), Africa Flores (ZP11-UAH) Francisco Delgado (ZP11-USRA), Kris Stanton (ZP11-USRA), and Daniel Irwin (ZP11), *Use of GPM Data Products in SERVIR Hydrological Application*
- Ramachandran, Rahul (ZP11), Peter Fox/Rensselaer Polytechnic Inst., Steve Kempler (GSFC), and Manil Maskey (ZP11-UAH), *Exploiting Untapped Information Resources in Earth Science*

- Serrat-Capdevilia, Aleix (U. AZ), Juan Valdes (U. AZ), Sugwook Wi (U. Mass), Tirthankar Roy (U. AZ), Brent Roberts (ZP11) and Pete Robertson (ZP11), *Seasonal Streamflow Forecasts for African Basins*
- Sterling, Alphonse (ZP13), Ron Moore (ZP13-UAH), David Falconer (ZP12-UAH), and Mitzi Adams (ZP13), *Revised View of Solar X-Ray Jets*

Poster

- Blakeslee, Richard (ZP11), Hugh Christian (UAH), Doug Mach (ZP11-USRA), Dennis Buechler (ZP11-UAH), Bill Koshak (ZP11), Thomas Walker (ZP11-UAH), Monte Bateman (ZP11-USRA), Michael Stewart (ZP11-UAH), Sue O'Brien (ZP11-UAH), Thor Wilson (ZP11-UAH), Steve Pavelitz (ZP21), and Cindy Coker (ES11), *New Mission to Measure Global Lightning from the International Space Station (ISS)*
- Cole, Tony (ZP11-UAH), Andrew Molthan (ZP11) and Lori Schultz (ZP11-UAH), *Characterization of Nighttime Light Variability over the Southeastern United States*; poster
- Deierling, Weibke (UC-Boulder), Christina Kalb (NCAR), Michael Peterson (NCAR), Chuntao Liu (Texas A&M), Douglas Mach (ZP11-USRA), and Richard Blakeslee (ZP11), *Conduction currents in oceanic and continental electrified clouds*
- Lang, Tim (ZP11), Nick Guy (U.WY), Eric Bruning (Texas Tech), and Samantha Berkseth (Texas Tech), *Investigating the relationship between turbulence and lightning*
- Mach, Doug (ZP11-USRA) and Monte Bateman (ZP11-USRA), *Comparison of Two Algorithms for the Reduction of Noise in Orbital Lightning Data*
- Molthan, Andrew (ZP11), Jason Burks (ZP11), Kevin McGrath (ZP11-Jacobs), Rahul Ramachandran (ZP11), and H. Michael Goodman (ZP10), *Challenges and Opportunities in Geocuration for Disaster Response*
- Molthan, Andrew (ZP11), Jason Burks (ZP11), and Jordan Bell (ZP11-UAH), *Identifying Severe Weather Damage and Impacts with Google Earth Engine*
- Morin, Corey (ZP11-NPP), Dale Quattrochi (ZP11), Brad Zavodsky (ZP11), and Jonathan Case (ZP11-ENSCO), *Modeled forecasts of dengue fever in San Juan, Puerto Rico using NASA satellite enhanced weather forecasts*
- Quick, Mason (ZP11-NPP), Richard Blakeslee (ZP11), Hugh Christian (UAH), and Michael Stewart (ZP11-UAH) *Airborne GLM Simulator (FEGS)*
- Ramachandran, Rahul (ZP11), Kaylin Bugbee (ZP11-UAH), Curt Tilmes (GSFC), and Ana Privette (Climate Data Solutions LLC), *Geocuration lessons learned from the Climate Data Initiative project*
- Roberts, Brent (ZP11), Pete Robertson (ZP11), Carol Clayson (WHOI), and Patrick Taylor (LaRC), *Coupled atmosphere and ocean boundary layer variability in the suppressed phase of the Madden-Julian Oscillation*
- Schultz, Chris (ZP11), Eric Bruning (Texas Tech), Timothy Lang (ZP11), and Kristin Kuhlman (NSSL), *Characteristics of Lightning within Electrified Snowfall Events using Total Lightning Measurements*
- Schultz, Lori (ZP11-UAH), Smith, Matt (ZP11-UAH), Kevin Fuell (ZP11-UAH) Geoff Stano (ZP11-ENSCO), Anita LeRoy (ZP11-UAH), and Emily Berndt (ZP11-USRA), *JPSS Proving Ground Activities with NASA's Short-term Prediction Research and Transition (SPoRT) Center*

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- Stano, Geoff ZP11-ENSCO), Christopher Crutch (ZP11), and William Koshak (ZP11), *North Alabama Total Lightning Climatology in Support of Lightning Safety Operations*
- Zavodsky, Brad (ZP11), Jonathan Case (ZP11-ENSC0), Kristopher White (NOAA NWS), and Jordan Bell (ZP11-UAH), *Development of an Objective High Spatial Resolution Drought Index*
- Spann, Jim (ZP01), Charles Swenson (Utah State U), Otavio Durao (INPE), Luis Loures (ITA Technological Institute of Aeronautics), Roderick Heels (U. TX-Dallas), Rebecca Bishop (Aerospace Corp), Guan Le (GSFC), Mangalathayil Abdu (INPE), Linda Krause (ZP13), Clezio De Nardin (INPE), and Eloi Fonseca (ITA), *The Scintillation Prediction Observations Research Task (SPORT) Mission*
- Cohen, Barbara (ZP13), Paul Haye (JPL), Benjamin Greenhagen (JPL), and David Page (UCLA), *Lunar Flashlight: Exploration and Science Using a Cubesat*
- Ahmad Esraa (U. Mass), Navdeep Panesar (ZP13-UAH), Alphonse Sterling (ZP13), and Ron Moore (ZP13-UAH), *Exploring the properties of Solar Prominence Tornados*
- Lenon, Amber (Syracuse U.), Samaiyah Farid (ZP12-UAH), Amy Winebarger (ZP13), and David Falconer (ZP12-UAH), *Exploration and Parameter Study of Active Region Luminosity*
- Champey, Patrick, Ken Kobayashi (ZP13), Amy Winebarger (ZP13), Sabrina Savage (ZP13), Jonathan Cirtain (ZP13), Brian Ramsey (ZP12), and Jeff McCracken (ZP21), *The Marshall Grazing Incidence X-ray Spectrometer (MaGIXS)*
- Tiwari, Sanjiv (ZP13-NPP), Ron Moore (ZP13-UAH), Matthais Rempel (NCAR), and Amy Winebarger (ZP13), *Evolution of Fine-scale Penumbral Magnetic Structure and Formation of Penumbral Jets*
- Antonsson, Sarah (U. Pacific), Sanjiv Tiwari (ZP13-NPP), Ron Moore (ZP13-UAH), and Amy Winebarger (ZP13), *Magnetic Structure and Formation of On-disk Coronal Plumes*
- McGall, James (Salisbury Univ.), Patrick Champey (ZP13-UAH)), Ken Kobayashi (ZP13), Amy Winebarger (ZP13), and Sabrina Savage (ZP13), *The MaGIXS sub-grating diffraction experiment and its implications for instrument integration and alignment*
- Johnson, Justin (Morehouse College), Alphonse Sterling (ZP13), and Ron Moore (ZP13-UAH) and Sarah Gibson (NCAR), *Probing Solar Eruption by Tracking Magnetic Cavities and Filaments*
- Canario, Daniel, Alphonse Sterling (ZP13), David Falconer (ZP12-UAH), and Ron Moore (ZP12-UAH), *Visibility of HinodeXRT X-Ray Jets at AIAEUV Wavelengths, A Temperature Indicator*