**Session title: Using Data in the Earth and Space Science Classroom to Engage Students as Real Scientists**

Description: This NESTA-ESIP hands-on workshop highlights freely-available lessons and strategies integrating data acquisition, analysis, and interpretation in the classroom engaging students in the scientific process.

**Session Abstract:**The past 20 years have been exciting times for the fields of Earth and Space Science (ESS) as technology has changed the way scientists view Earth and space. Measurement platforms provide a myriad of data to answer questions about Earth processes and how humans are affecting them. The Next Generation Science Standards have applied this new view in developing grade-appropriate performance expectations that mirror the work of scientists. Students will be expected to collect and analyze data, build models, and employ scientific practices to answer questions about the natural world. A central aspect of this process is data – acquisition, analysis, and interpretation. This session will provide exemplary teaching resources to assist teachers with the use of data in the classroom in meaningful applications that engage students in the study of Earth and space science. Participants will engage with hands-on lessons that utilize the cross-cutting concepts to unite core ideas and incorporate a variety of science and engineering practices. This workshop, which is offered through collaboration between the National Earth Science Teachers Association (NESTA) and the Earth System Information Partnership (ESIP), focuses on freely available materials offered by ESIP-associated programs, NESTA and its flagship ESS education website, Windows to the Universe.

**Status**

Scheduled for the 3:30 – 4:30 pm slot on Friday in both Richmond (October 17) and Orlando (November 7th). Proposal has been “accepted” by NSTA for Long Beach, but the schedule has yet to be released.

**Recommended Schedule**

3:30 – 3:40: Introduction to workshop and presenters (including ESIP, NGSS relevance, and scientific topics associated – assume two resources/activities are being demonstrated). Activities/resources chosen should provide opportunities to use NGSS approach (disciplinary core ideas, science/engineering processes, cross-cutting concepts)

3:40 – 3:55: Hands on activity associated with online resource developed by ESIP partner #1

3:55 – 4:00: Demonstration of ESIP online interactive #1

4:00 – 4:15: Hands on activity associated with online resource developed by ESIP partner #2

4:15 – 4:20: Demonstration of ESIP online interactive #2

4:25 – 4:30: Sum up, highlight opportunities for engagement and access resources