

[Earth Science Data Analytics: Practice & Applications](#) [1]

Submitted by Lindsay.Barbieri on Fri, 2016-10-28 12:38 Thursday, January 12, 2017 - 16:00

Event: [Winter Meeting 2017](#) [2]

Session Type: [Breakout](#) [3]

Room Location: [Salon E](#) [4]

Expertise Level: [Beginner](#) [5]

Abstract/Agenda:

The Earth Science Data Analytics Cluster is in a state of transition, going from the theoretical discussion of "What is Earth Science Data Analytics" to connecting more to the practice and technical barriers and solutions that exist within this realm. The ESDA Cluster is currently working to connect between Earth Scientists and Data Professionals (Data Scientistis, Managers, etc). We have identified within our own ESIP Cluster a series of data analytics challenges within various earth science domains, and will use these (and other solicited challenges) as a launching point to further our Cluster Activities / Discussion during the ESIP Winter Meeting. Managing data the way it is needed to answer a given question and yet be made useful for others

- Ensuring the data are reproducible.
- Data sharing
- Proprietary mindset in data collection / generation: Not knowing how to share data openly: where / what format / how to document / make citable
- Legacy data: additional problem of missing information, degraded items/information/technology
- Data Discovery actually locating it can be problematic even if you know data exists
- Integrating datasets from multiple data providers into a common standard
- Frequently researchers don't want to spend the time after the research is complete to align the data with a standard.
- Creating/Developing/Providing data services that enable users efficiently (i.e., properly and quickly) acquiring the data sets they want/need out of the massive Earth Science Data products available in US or/and (literally) everywhere around the World.
- Making data findable by scientists, across multiple repositories, websites, data assembly centers, etc.
- Connecting related data: connecting data from the same sample/cruise/project distributed across different repositories, connecting different versions of data and processed products to raw data in a way that the scientists knows what they need to use, connecting data in repositories to publications.

From here, the ESDA Cluster has identified two potential ways of going forward:1.

Examining/prototyping technical analytics solutions 2. Soliciting challenges from scientists; Connect Earth Scientists with Data Scientists

For either perspectives, we will have a series of speakers and challenges identified from the earth science community, by both: use a 'Calling all Scientists' to attend the ESDA Session and Solicit Earth Scientist Data usage challenges to accomplish the two goals of this session (1) Make the connections between Earth Scientists with Data Scientists (2) explore technical solutions that may address challenges

Session Leads:

Name: [Lindsay Barbieri](#) [6]

Organization(s): [University of Vermont](#) [7]

Email: lkbar@uvm.edu [8]

Name: [Tiffany Mathews](#) [9]

Organization(s): [Booz Allen Hamilton](#) [10]

Email: tiffany.j.mathews@nasa.gov [11]

Name: [Shea Caspersen](#) [12]

Email: caspersen.shea@epa.gov [13]

Name: [Steve Kempler](#) [14]

Organization(s): [Goddard DAAC](#) [15]

Creative Common License: Creative Commons Attribution 3.0 License

Accepted:

Source URL: <https://commons.esipfed.org/node/9519>

Links

- [1] <https://commons.esipfed.org/node/9519>
- [2] <https://commons.esipfed.org/2017WinterMeeting>
- [3] <https://commons.esipfed.org/session-type/breakout>
- [4] <https://commons.esipfed.org/taxonomy/term/2606>
- [5] <https://commons.esipfed.org/taxonomy/term/260>
- [6] <https://commons.esipfed.org/node/7893>
- [7] <https://commons.esipfed.org/taxonomy/term/1861>
- [8] <mailto:lkbar@uvm.edu>
- [9] <https://commons.esipfed.org/node/1555>
- [10] <https://commons.esipfed.org/taxonomy/term/848>
- [11] <mailto:tiffany.j.mathews@nasa.gov>
- [12] <https://commons.esipfed.org/node/9008>
- [13] <mailto:caspersen.shea@epa.gov>
- [14] <https://commons.esipfed.org/node/1318>
- [15] <https://commons.esipfed.org/taxonomy/term/699>