“Intersecting Informatics, Data Intensive Science and Networks of Science”

Pacific Northwest NATIONAL LABORATORY

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Frontiers in Computational and Information Sciences
Seminar Series

Presented by…

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Abstract Among the consequences of new and diversifying means of complex data generation is that, as many branches of science have become data-intensive, they in turn broaden their long-tail distributions -- less complex data will always produce excellent science. There are many familiar informatics functions that enable the conduct of science (by specialists or non-specialists) in this new regime. For example, the need for any user to be able to discover relations among and between the results of data analyses and informational queries. Unfortunately, multi-modal discovery over complex data remains more of an art form than an easily conducted practice. Worse is that the resource cost of creating useful science functionality for a wide spectrum of use has been increasing. Folded into this landscape is an increasingly 'networked' aspect to scientific research. Even with current informatics infrastructure, these networks too are increasingly complex. Extra effort is required to make effective progress on tasks that should be routine. The considerable resources consumed could be used for many other purposes. It is now time to change these trends.

The frontier is an interesting and scientifically-based model of how modern informatics can be used to design and undertake complex networked science in the face of increasing data complexity/ intensity all cast in the present reality of Web/Internet-based data and software infrastructures. A logical consequence of this path is that the people working in this new mode of research require additional education to become effective and routine users of new informatics capabilities with the goal to achieve the same fluency that researchers may have in lab techniques, instrument utilization, model development and use, etc.

This presentation will introduce, discuss, and link the aforementioned elements of the frontier of informatics.

More info?

See http://tw.rpi.edu/

Thursday,
December 1

EMSL Auditorium

10:30 a.m.