

**Submittee:** Richard Lockhart  
**Date Submitted:** 2015-07-13 11:47  
**Title:** Big Data in Environmental Science  
**Event Type:** Conference-Workshop

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**Location:**  
University of British Columbia

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**Dates:**  
May 11 to May 15, 2015

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**Topic:**  
The extraordinarily broad field of Environmental Science faces an explosion in the amount of data and in the dimension of records captured. We brought together methodologists building relevant tools in such areas as Laplace approximation techniques in high-dimensional Gaussian process modelling, stochastic PDE approaches to stochastic prediction and interpolation, state space models for big data, data compression, big data visualization tools, parallel processing and data management tools for statistical analysis, and sparsification techniques, with statisticians and other mathematical scientists working directly with research groups in the environmental sciences.

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**Methodology:**  
Lectures

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**Objectives Achieved:**  
This workshop brought together a group of experts in big data modelling, particularly for spatial data, and a larger group of students and faculty wanting to learn about the problems inherent to coherent statistical analysis of big data in environmental science. Conjectures are not of much interest in this environment. The conversation was fruitful and many conversations were started between people who had not previously talked together.

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**Scientific Highlights:**  
It is too early to know this.

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**Organizers:**  
Please see the attached file listing Organizers and Speakers.

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**Speakers:**

Please see the attached file listing Organizers and Speakers.

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**Links:**

<http://people.stat.sfu.ca/~lockhart/richard/BDES/>

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**File Uploads:**

Additional Upload 1: [http://www.pims.math.ca/files/final\\_report/Speakers\\_0.pdf](http://www.pims.math.ca/files/final_report/Speakers_0.pdf)

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