

Final Report  
of the  
AARMS Special Session on High-Dimensional Data Analysis  
of the  
2011 Science Atlantic Mathematics, Statistics, and Computer Science Conference  
St. Francis Xavier University  
October 16<sup>th</sup>, 2011

The Field lecture in Statistics was delivered on Saturday afternoon, October 15<sup>th</sup>, by Dr. Christian Genest, Professor of Statistics and holder of a Canada Research Chair in Stochastic Dependence Modeling at McGill University. Dr. Genest spoke on “Predicting the Unpredictable: Extreme-value Theory.” Anticipating extreme events and managing the risks they entail is of paramount importance for insurance, finance, and hydrology. A glimpse of the models and techniques of inference relevant to this field was provided by Dr. Genest.

The focus of the special session was on high-dimensional data analysis using statistical tools. There was one key-note speaker, Dr. Edward Susko, Dalhousie University, and five invited speakers from universities all across the Atlantic provinces and from the Atlantic Computational Excellence Network (ACENet). Speakers include Dr. Ying Zhang, Acadia University; Dr. Asokan Variyath, Memorial University; Dr. Jeffrey D. Picka, University of New Brunswick Fredericton; and two speakers from ACENet: Mr. Greg Lukeman, Chief Technology Officer, and Mr. Joey Bernard, Computation Consultant.

The key-note speaker, Dr. Edward Susko, presented his research on properties of measures of uncertainty in phylogenetic inference. He is the recipient of the 2011 SSC-CRM award from the Statistical Society of Canada in honour of his achievements in Statistics theory development and in training high quality personnel. The three invited speakers from Acadia, Memorial, and New Brunswick addressed the high-dimensional data analysis issues in their own research fields. The two speakers from ACENet described the resources and facilities provided by ACENet and conducted a session on how to perform parallel computing in R.

Including the presenters themselves, there were twenty participants in this special session from all three disciplines, namely Mathematics, Statistics, and Computer Science. All the participants are regional, and included fifteen students, thirteen faculty members, and two representatives of ACENet. Overall, the event was very well received and considered quite successful.

## Detailed Budget

<b>Revenue</b>	<b>Budget</b>	<b>Actual</b>
Registration		
Faculty & ACENet Reps	500.00	300.00
Students	200.00	80.00
AARMS Contribution	4500.00	2947.25
<b>Total Revenue</b>	<b>5,200.00</b>	<b>3,247.25</b>
<b>Expenses</b>		
Field Lecture travel expense for Dr. Genest	2000.00	1821.97
AARMS keynote travel expense for Dr. Susko	1000.00	625.28
Partial travel expenses for students	1500.00	500.00
Morning refreshments / light lunch	700.00	380.00
<b>TOTAL Expenses</b>	<b>5,200.00</b>	<b>3,247.25</b>
<b>Balance</b>	<b>0.00</b>	<b>0.00</b>