Report to AARMS on
The 37ᵗʰ Science Atlantic Math/Stat/CS Conference
MSCS 2014

The 37ᵗʰ Science Atlantic Math/Stat/CS Conference was held at the University of New Brunswick, Saint John, and initially scheduled for October 3-5, 2014. A Sunday session on Modelling and Simulation was initially scheduled, but we ended up accommodating all talks on Saturday, October 4, 2014.

Participants:

The Conference attracted **171 participants** (**99 undergraduate students**, **17 graduate students**, **48 faculty members**, **2 teachers** and **5 retired faculty**). The main focus of the conference is the encouragement of undergraduate students to present their research work under the guidance of faculty members, and writing team competitions. For the Mathematics and Statistics part of the conference, there were **18 official teams** that participated in the Mathematics Problem Solving Competition. For the Computer Science part of the conference, there were **17 official teams** that participated in the Programming Competition.

Research Talks:

The 34 research talks at the conference included 4 undergraduate Statistics talks, 4 undergraduate Computer Science talks, and 15 undergraduate Mathematics talks. There were 11 contributed talks, 4 of them were in Computer Science and 7 in Mathematics, Statistics (with 1 talk in Statistics Education).

Conference schedule of talks, abstracts, and other details can be found in the conference booklet, appended to this report.

Invited Speakers:

The following represented our invited speakers in Statistics, Mathematics and Computer Science, respectively:

1) Field's Lecture:

Dr. Erica Moodie, Department of Epidemiology, Biostatistics, and Occupational Health, McGill University
Title: Dynamic treatment regimens: Quantitative tools for the personalization of medicine

2) Blundon Lecture:

Dr. John Grant McLoughlin, UNB-Fredericton, Faculty of Education
Title: Mathematical Problem Solving

3) Sedgewick Lecture:

Dr. Manuela Veloso, (Herbert A. Simon Professor, Computer Science Department, Carnegie Mellon University
Title: Symbiotic Autonomy: Robots, Humans, and the Web

Prizes:

There were **prizes for the Best Paper Presentations** in each discipline, and **prizes for the top three competition team winners**, as listed in **APPENDIX 1** at the end of this report.

Conference Support:

The conference was supported by generously by many sponsors, including Science Atlantic, AARMS, University of New Brunswick, Saint John, and a number of local, regional and national organizations. A list of sponsors can be found in **APPENDIX 2**, at the end of this report.

Conference Bag and Name Tags:

A conference bag was designed with the logos of AARMS, Science Atlantic and UNB Saint John (Appended with this report). In addition, name tags and banquet tickets were designed with the three logos.

Banquet Ticket Logo

Banquet Ticket $35

Saturday, October 4, 2014
Loyalist Room, Trade & Convention Centre
Saint John Hilton
Banquet: 7:00pm   Cash Bar: 6:00pm

Name Tag Logo

M.H. Hamdan

UNB Saint John

APPENDIX 1

Prizes for Science Atlantic 2014 Math/Stat/CS

Best Presentation for CS:TOTAL $250

1st $100 + Water Bottle.

Karen Korstanje, Mount Allison University

2nd $75

Nikita Volodin, University of Prince Edward Island

3rd $50

Mariah Martin Shein, Mount Allison University

4th $25

Federico Mora, Mount Allison University

$100 for the ACEMat CS award (http://scienceatlantic.ca/awards/aimmsaward/)

Not Awarded

Best Presentation for Math:TOTAL $300

1st $100 + Water Bottle.

Yuhuai Wu, University of New Brunswick-Fredericton

2nd $75

Emily Rosta, University of Cape Breton

3rd $50

Rejean Leblanc, Mount Allison University

4th $25

(tie)

Brandon Doherty, University of New Brunswick

Peter Graves-Akerley, Saint Mary's University

Matt Trace, Acadia University

Best Presentation for Stats:TOTAL $275

1st $100, book prize + Water Bottle

Matthew van Bommel, Acadia University

2nd (tie) $75

Zhouqin (Mary) He, St. Francis Xavier University

2nd (tie) $75

Dylan Day, Acadia University

4th $25

Jon Smith, Acadia University

CS Competition: TOTAL $450

1st $75 each ($225) Startup Weekend NB tickets, Water bottles

Shellshock (Mount Allison University): Evan MacNeil, Corinne Madsen, Steve Scott

(coach: Liam Keliher)

2nd $50 each ($150) Startup Weekend NB tickets, Water bottles

Bitshift (University of New Brunswick – Saint John): Alec Gordon, Brandon Smith, Jessy Blanchard

(coach: Aziz Fellah)

3rd $25 each ($75) Startup Weekend NB tickets, Water bottles

Dalhousie Gold (Dalhousie University): Alexander Zinck, Tyler Blair, Rafael Bronfman-Nadas

(coach: Vlado Keselj)

Math Competition: TOTAL $300

1st $75 each ($150) + Water Bottles + Crux one-year subscription + Maplesoft Maple 18

Dylan Day, Acadia University

Matthew van Bommel, Acadia University

2nd $50 each ($100) + Water Bottles + Crux one-year subscription + Maplesoft Maple 18

John MacMillan, Mount Allison University

Kathleen MacMillan, Mount Allison University

3rd $25 each ($50) + Water Bottles + Crux one-year subscription + Maplesoft Maple 18

Chris Pardy, Memorial University of Newfoundland

Brandon Thorne, Memorial University of Newfoundland

APPENDIX 2

ORGANIZATION	CONTRIBUTION
Canadian Nuclear Safety Commission (CNSC)	$300
Innovatia	$300
PearsonEd	$300+Book Prizes
CMS StudC	$500
Enterprise Saint John	$300
Planet Hatch	$300+Notebooks+Some Swag+Prizes/Bottles/Startup Weekend Tickets
NB Power	$300
Student Representative Council (UNB Saint John)	$300 towards student pizza party
J.D. Irving (IT Division)	$300
Maplesoft	6 Maple Licenses
CMS	6 CRUX subscriptions
Statistical Society of Canada	Book prize
ACM	T-Shirts, Certificates, Student Subscriptions
AARMS	Up to $4000 (as per need)
Science Atlantic	$3000 + $1200 prizes
VP Saint John	Up to $3000 for Saturday's lunch (non-transferrable)
Dean of SASE	Up to $2000 (non-transferrable)
Chairs, Math Sciences and CSAS (UNB Saint John)	Up to $1000 (non-transferrable)

APPENDIX 3
Conference Final Budget

REVENUES

Organizational Sponsors	Science Atlantic	$3000
Corporate Sponsors		
	CMS STUD C	$500
	Planet Hatch	$300
	CNSC	$300
	NB Power	$300
	Innovatia	$300
	JDI	$300
	Pearson Ed	$300
	Enterprise Saint John	$300
Registration	Registration Fee + Banquet Tickets	$10965
TOTAL REVENUE		***$16565***

EXPENSES

Invited Speakers	Travel & Local Expense	$2253.75	
	Gifts for Speakers	$114.42	
	Dinner with Speakers	$164.42	
		Subtotal	*$2532.59*
Food Services	Banquet, Bar Setup & Equipment Rental	$4721.70	
	Reception (Friday PM)	$1660.39	
	Saturday Coffee Breaks	$782.67	
	CS and Math/Stat Committees' Nutrition Break (Friday afternoon)	$409.13	
	Students' Snack Tables	$256.08	
		Subtotal	*$7829.97*
Non-Food Expenses	Conference Bags	$867.28	
	Conference Badges	$232.78	
	Photocopies, Supplies and Incidentals	$187.37	
	Paypal Charges	$133.76	
	Student Prizes	$375	
		Subtotal	*$1796.19*
TOTAL EXPENSES			*$12158.75*

Student Travel Support: We had estimated student travel at around $5400. This final amount will depend on AARMS support.

Plaque Update: In light of future conferences being a joint effort between Science Atlantic and AARMS, we need to update the student award plaque to reflect this change.

Contributions from UNB:

Vice President (Saint John), Dean's Office, Depts. CSAS & Math Sci provided:

        Saturday lunch; 200 USB's; Speakers' Honoraria; Incidentals

Student Representative Council provided student pizzas

Chartwell's Food Services provided 10% discount on their food & reception + 200 pens