AARMS Report for the East Coast Combinatorics Conference July 27-28, 2015

Prepared by M.E. Messinger (Mount Allison University), submitted July 31, 2015

Description and Highlights

The East Coast Combinatorics Conference (ECCC) was held July 27-28th at Mount Allison University, New Brunswick. The ECCC is designed to bring together mathematicians and computer scientists interested in all aspects of combinatorics and the scope of the conference includes most areas of modern combinatorics, including but not limited to, graph theory, design theory, combinatorial optimization, and applications of combinatorics in computer science. This was the 10th year of the conference.

The conference was made possible through generous funding from the Atlantic Association for Research in the Mathematical Sciences (AARMS) and funding from the Mount Allison Dean of Science.

A plenary talk by Dr. Peter Danziger (Ryerson University) was given on the first day of the conference. Dr. Danziger is a well-respected researcher in both design theory and graph theory. He gave an interesting talk, entitled "Factoring into cycles", which focussed on the Oberwolfach and Hamilton-Waterloo problems and included the origins and history of the problems as well as recent results. The first day of the conference also included five talks given by faculty and graduate students. The second day of the conference included 6 talks given by faculty and graduate students, along with a full-hour long "open problems" session. A number of open problems were presented in a very collaborative and inclusive atmosphere. The movie "Codebreakers: lost heroes of Bletchley Park" was shown in the evening.

Along with the "open problems" session, the conference talks generated interesting discussions and new ideas; and also allowed researchers with existing collaborative projects an opportunity to come together to work on such projects. Immediately following the conference, on July 29th, the Graphs-and-Games Group (AARMS Collaborative Research Group) held a mini-workshop. Most ECCC participants also participated in the mini-workshop. The mini-workshop provided a forum for four undergraduate students to give short talks on their summer research, but the majority of the day was devoted to exploring new research problems in a collaborative atmosphere.

ECCC Participants

The participants and their affiliations are listed below. Students are indicated with *.

Regional Participants:

- (1) Alyssa Sankey (University of New Brunswick)
- (2) Shannon Fitzpatrick (University of Prince Edward Island)
- (3) Stephen Finbow (St. Francis Xavier University)
- (4) Jared Howell (Grenfell Campus, Memorial University of Newfoundland)
- (5) Robert Bailey (Grenfell Campus, Memorial University of Newfoundland)
- (6) Andrea Burgess (University of New Brunswick, Saint John)
- (7) *Jack O'Connor (University of New Brunswick, Saint John)
- (8) Tim Alderson (University of New Brunswick, Saint John)
- (9) James Preen (Cape Breton University)
- (10) Danielle Cox (Mount Saint Vincent University)
- (11) Suzanne Seager (Mount Saint Vincent University)
- (12) *Todd Mullin (Mount Saint Vincent University / Dalhousie University)
- *Santiago Guzman Pro (Dalhousie University / Universidad Nacional Autónoma de México)
- (14) *Lucas Mol (Dalhousie University)
- (15) *Neil McKay (Dalhousie University)
- (16) Bert Hartnell (Saint Mary's University)
- (17) *Jennie Newman (Saint Mary's University)
- (18) Margaret-Ellen Messinger (Mount Allison University)
- (19) *Finn Lidbetter (Mount Allison University)
- (20) *Grace Power (Mount Allison University)
- (21) *Alejandro Angeli (Mount Allison University)
- (22) *Elizabeth Bardeau (Mount Allison University)

National / International Speakers:

- (23) *Christopher van Bommel (University of Victoria / University of Waterloo)
- (24) Peter Danziger (Ryerson University)

Expenses

In our proposal to AARMS, we budgeted for a second plenary speaker. Unfortunately, the second plenary speaker was unable to attend the conference. Because the cancellation occurred quite late, we did not attempt to find a new plenary speaker. Thus, our expenses are less than expected. Below is the breakdown of expenses being claimed from AARMS, along with the expenses being claimed from the Mount Allison Dean of Science. Originally, we proposed to charge a \$50 conference fee to only grant-holding faculty (and no fee for others). However, apart from the conference organizer and the plenary speaker, only 2 attending faculty members held grants; so we decided to waive this fee.

Breakdown of expenses being claimed from AARMS

Total	\$2110.62
- A Conce Break	Ψ233.07
4 x Coffee Break	\$235.67
Travel (train) for student S. Pro	\$33.35
Travel (mileage) for student (J. O'Connor)	\$158.34
Travel (mileage) for students (S. Pro, L. Mol)	\$166.92
Hotel for student (T. Mullen)	\$296.76
Travel (mileage) for student (T. Mullen)	\$358.80
Travel (mileage) for student (N. McKay)	\$159.90
Hotel for Plenary Speaker (P. Danziger)	\$345.78
Airfare for Plenary Speaker (P. Danziger)	\$355.10
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The remaining conference expenses are being covered by the Mount Allison Dean of Science and the breakdown of these expenses follows:

Total	\$415.84
noter for student (S. F10)	\$133.94
Hotel for student (S. Pro)	\$155.94
Hotel for student (J. O'Connor)	\$155.94
Hotel for student (L. Mol)	\$103.96

ECCC 2015 Conference Photo

