

**Report on the SIAM meeting in Discrete Mathematics,
Dalhousie University, 18-21 June 2012
Dr. Jeannette Janssen, local organizer**

On June 18-21, 2012, Dalhousie University hosted the biannual SIAM meeting on Discrete Mathematics (SIAM-DM12). This meeting is held in North-America every two years. The Society for Industrial and Applied Mathematics (SIAM) supervises the meeting and handles the registration, but the details of the meeting are arranged by the local organizer. The members of Dalhousie's Graphs & Games group, Jason Brown, Jeannette Janssen and Richard Nowakowski, were the local organizers for this year's meeting, and all students and post-docs of the group have helped out.

The meeting attracted a record number of almost 400 discrete mathematicians, mainly from North-America and Europe. The meeting had eight plenary lectures by leading researchers in the field, as well as 8 concurrent sessions of minisymposia. The talks covered a wide range of topics, ranging from pure to applied, with links with algebra, topology, applied math, and computation. For example, the invited talk by Anders Björner, chaired by Dr. Brown, showed how cell complexes, known from topology, can be applied to combinatorial structures. The invited talk by Balász Szegedy, chaired by Dr. Janssen, discussed the application of tools from analysis and probability theory to find relationships between subgraph counts in graphs. The Dénes König prize lecture was held on the evening of the first day, followed by a welcome reception. The prize winner and lecturer was Zeev Dvir from Princeton University. On Wednesday evening, the future of discrete mathematics was discussed at a forward looking session, with four panelists.

The Atlantic combinatorics community actively participated in the meeting. Dr. Brown is organizer of, and speaker in, a minisymposium on Combinatorial Polynomials. Dr. Janssen, together with Lata Narayanan from Concordia University, organized a minisymposium on geometric graphs. David Pike from Memorial organized a (four part) minisymposium on Design Theory. Nancy Clarke from Acadia and Shannon Fitzpatrick from UPEI are speaking in a minisymposium on Cops and Robber Games on Graphs. Most discrete mathematicians in Atlantic Canada attended the meeting.

Thanks to the support of AARMS, we were able to provide \$300 dollars in support for post-doctoral fellows from Canada. This money helped off-set the registration cost of 355 USD. SIAM offered support for PDFs from the United States, and for graduate students from anywhere in North-America, but not for this sub-group. We were able to use the AARMS money to provide funding to 14 Canadian PDFs. All were speakers in one of the minisymposia.

BUDGET:

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| Financial support for Canadian PDFs | 13 x 300 = | 3900 |
| Partial support for 1 Canadian PDF (This PDF also received support from the workshop WAW) | | 100 |
| TOTAL | | 4000 |