Submittee: Ian Frigaard
Date Submitted: 2011-11-09 11:14
Title: Applied Mathematics Perspectives 2011
Event Type: Conference-Workshop

Location:
UBC (7 workshops) // University of Victoria (2 workshops) // BIRS (2 workshops)

Dates:
Various in July 2011

Topic:
At UBC: Advances in the numerical solution of constrained differential equations // Complex Fluids in Industry & Nature // Delay Differential Equations in Applications: Common Themes and Methods // Numerical methods for incompressible flow // Numerical Ricci Flow in Computer Science, Geometry, and Physics // Reproducible Research: Tools and Strategies for Scientific Computing // Seismic and medical imaging // At UVic: Mathematical Biology Workshop and IGTC Summit // Applied Analysis & Applied PDEs // At BIRS: Localized Pattern Formation* // Mathematical Challenges from Spatial Ecology: Environmental Variability* //

Methodology:
The format of the 7 UBC workshops were all similar. They each consisted of a single session of speakers on that theme. The workshops ran in parallel in close proximity to each other, with shared lunch and coffee breaks and receptions. There was a poster session joint between the workshops, attracting around 30 posters. One of the workshops ran a public forum downtown on the Saturday preceding ICIAM. The IGTC summit at University of Victoria contained a mix of lectures and research presentations, as it doubled as a graduate summer school in Math Biology. A poster session was also held. The second workshop at University of Victoria also contained an educational component. The two BIRS workshops followed a standard 5-day format.

Objectives Achieved:
AMP was a series of workshops selected to expose different facets of applied mathematics, interpreted broadly. The workshops were targeted at scientific advances in the different areas, but specifically targeted to occur in the weeks before and after ICIAM 2011, so as to enhance the attendance at ICIAM and allow for a deeper investigation into these selected areas.

Scientific Highlights:
Too many to list - each of the workshops had its own highlights

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Organizers:

Local Organising Committee: I. Frigaard (University of British Columbia), T. Hillen (University of Alberta), B. Khouider (University of Victoria), M. Lamoureux (University of Calgary), R. LeVeque (University of Washington), N. Nigam (Simon Fraser University), R. Russell (Simon Fraser University), R. Spiteri (University of Saskatchewan), M. Ward (University of British Columbia) // Scientific Committee: R. Craster (Imperial College, UK), M. Davidson (University of Western Ontario), I. Frigaard (University of British Columbia), G. Homsy (University of British Columbia), S. Howison (Oxford University, UK), H. Othmer (University of Minnesota, US), M. Overton (Courant Institute, US), O. Scherzer (Vienna, Austria), R. Spiteri (University of Saskatchewan) // Workshops held at UBC: R. Spiteri (Saskatchewan), C. Greif (UBC), N. Balmforth (UBC), I. Frigaard (UBC), G. Homsy (UBC), S. Campbell (Waterloo), T. Humphries (McGill), B. Krauskopf (Bristol), J. Sieber (Portsmouth), P. Minev (Alberta), D. Schoetzau (UBC), C. Doran (Alberta), S. Vardarajan (Alberta), D. Gu (SUNY), B. Gulliver (Minnesota), R. LeVeque, (U. Washington), I. Mitchell, (UBC), C. Moler, (Mathworks Inc.), V. Stodden (Yale), P. Binding (Calgary), M. Lamoureux (Calgary), G. Margrave, (Calgary) // Workshops held at University of Victoria: R. Edwards, J. Ma & P. van den Driessche (Victoria), L. Allen (Texas TU), M. Mackey (McGill), S. Levin (Princeton). M. Agueh (Victoria), S. Ibrahim (Victoria), S. Stechmann (UCLA) // Workshops held at BIRS: M. Ward (UBC), E. Knobloch (Berkeley), A. Doelman (Amsterdam), Y. Nishiura (Hokkaido), B. Deconinck (U. Washington), S. Cantrell (Miami), C. Cosner (Miami), M. Lewis (Alberta), R. Holt (Florida)

Speakers:
Approximately 220 speakers took part. The names and abstracts are in the workshop manuals available at the website: http://www.mitacs.ca/goto/amp2011 or directly from PIMS. 4 of these are uploaded

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Links:
http://www.mitacs.ca/goto/amp2011

File Uploads:
Additional Upload 1:
http://www.pims.math.ca/files/final_report/AMP_manual_-_Complex_Fluids_And_Flows.pdf
Additional Upload 2:
http://www.pims.math.ca/files/final_report/AMP_manual_-_Delay_Differential_Equations.pdf
Additional Upload 3:
http://www.pims.math.ca/files/final_report/AMP_manual_-_Numerical_Ricci_Flow.pdf
Additional Upload 4:
http://www.pims.math.ca/files/final_report/AMP_manual_-_Reproducable_Research.pdf

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