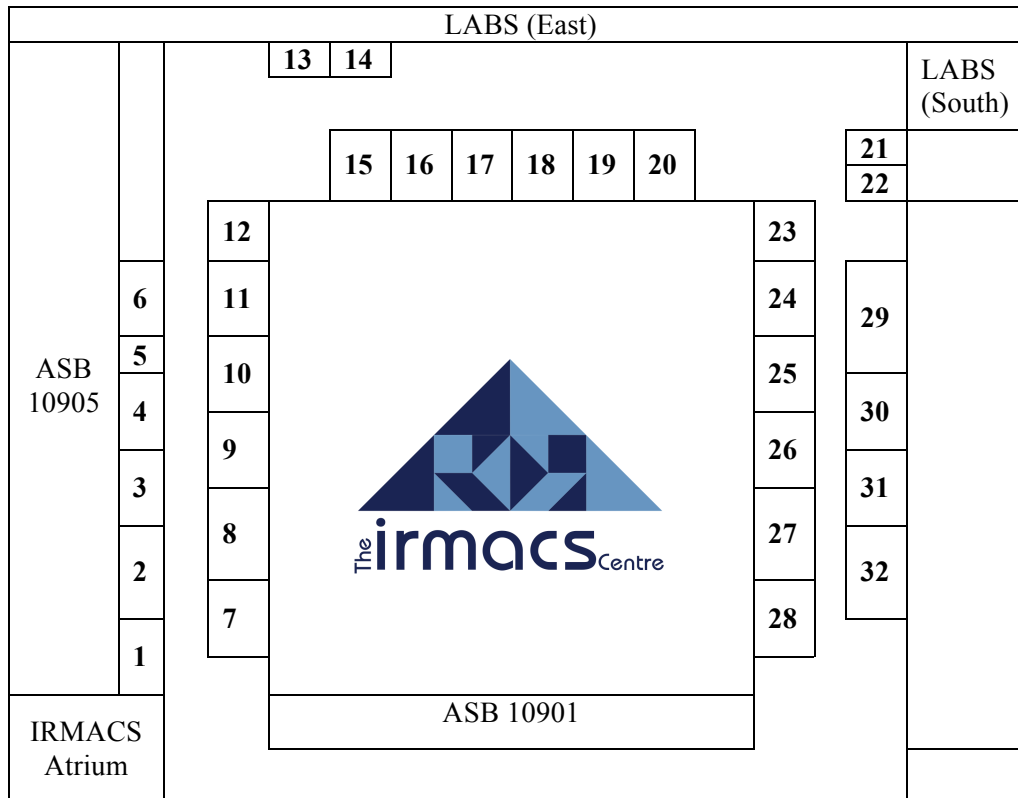


**5<sup>th</sup> Annual IRMACS Day Celebration**  
**April 9<sup>th</sup>, 2010**  
**IRMACS Researcher Poster Session**  
**Presentation Layout**



1. **What is the expected length of a branch on a tree** – Olivier Gascuel, Heyang Li, Arne Mooers, Mike Steel
2. **Optimal Fractional Factorial Split-Plot Designs for Model Selection** – J. Goh and D. Bingham
3. **A new construction of Golay sequences of length  $2^m$**  – Amy Wiebe, Jonathan Jedwab, and Frank Fiedler
4. **Trust Relationships Can Delay Market Stability** - Laurens Bakker, Warren Hare, and Bojan Ramadanovic
5. **Communication Networks** – Sukhchandan Lally, Reza Qarehbaghi, Laxmi Subedi, and Ljiljana Trajkovic
6. **Modeling the survival times of forest fires** – Alisha Albert-Green, Charmaine Dean, Douglas Woolford, John Braun, David Martell & Steven Cumming, Harlan Campbell, Steve Taylor & Ken Lertzman
7. **Extraction of Hemodynamic Parameters from Seismocardiogram** - Kouhyar Tavakolian, Brandon Ngai, Alireza Akhbardeh, Viatcheslava Gurev, Andrew P. Blaber, and Bozena Kaminska
8. **A Cellular Automata Model on Residential Migration in Response to Neighborhood Social Dynamics** – Vahid Dabaghian, Piper Jackson, Valerie Spicer, and Kathryn Wuschke
9. **Directionality of Criminal Vectors** – Richard Frank

10. **Integer Programming for an Optimal X Chromosome** – Saehee Choi and Ryan Coghlan
11. **Four Open Problems In Combinatorics** – Hayri Ardal, Tom Brown, Veselin Jungic, and Petr Skoda
12. **Toward Spatial Tracking In Multiple Camera Environment** - Xiaochen Dai and Shahram Payandeh
13. **The Internet-Based Teleoperation Systems** - Jae-young Lee, Shahram Payandeh, and Ljiljana Trajković
14. **Context-aware Wireless Sensor Network for Environmental and Personal Monitoring** - M. Marzencki, B. Hung, P. Lin, Y. Huang, T. Cho, Y. Chuo, and B. Kaminska
15. **Non-Holonomic Robot's Navigation Controller: a Kernel Regression Approach** - Soheil Keshmiri, and Shahram Payandeh
16. **Effect of Sodium Reduction on Cardiovascular Disease (Latin American Countries)** – Azadeh Alimadad, Elham Rahmanian, and Michel Joffres
17. **A comparison of classification algorithms for the identification of smoke plumes from satellite images** - V. Wan, C.B. Dean, W.J. Braun, and S. Henderson
18. **Insights into the structural evolution of amniote genomes** - A. Ouangraoua, A. McPherson, C. Chauve and E. Tannier
19. **Conceptual Models for Synthetic Bipedal Motors** - S. Sadeghi, G. A. Blab, M. J. Zuckermann, N. R. Forde, and H. Linke
20. **Crash of '87 – Was it Expected? Aggregate Market Fears and Long Range Dependence** – Nikola Gradojevic and Ramo Gencay
21. **Computational Graph Theory @ Irmacs** - Bojan Mohar, Matt DeVos, Luis Goddyn, Guillaume Chapuy, Jessica McDonald, Diego Scheide, Lino Demasi, Ararat Harutyunyan, Azhvan Sheikh Ahmady, Nathan Singer, Petr Skoda, Andrea Spencer
22. **Embedding Graphs in the Extended Grid, with Islands and Bridges** – Michael Coury and Pavol Hell
23. **Meeting the Challenges of Intellectual Property Issues in Cultural Heritage: Introducing the IPinCH Project** – Julie Hollowell and George Nicholas
24. **CzSaw: a New Visual Analytics Tool** – Victor Chen, John Dill, Dustin Dunsmir, Nazanin Kadivar, Eric Lee, Cheryl Qian, Chris Shaw, Robert Woodbury
25. **Visual Analytic Collaboration: Boeing and SFU** – John Dill and Brian Fisher
26. **SCIENCE Lab** – Richard Arias, Brian Fisher, Tera Marie Green, Mona Haraty, Linda Kaastra, Syavash Nobarany, Aaron Smith, Andrew Wade, and Ivan Zhao
27. **mrsFAST: A cache oblivious short read mapper** – Faraz Hach, Fereydoun Harmozdiari, Can Alkan, Sa Li, Steven JM Jones, Inanc Birol, and S. Cenk Sahinalp
28. **Computational Methods to Aid Comparative Analysis of Microbial Genomes** – Geoffrey L. Winsor, Thea Van Rossum, Leanne A. Fleming, Raymond Lo, Nancy Yu, Morgan Langille, Matthew D. Whiteside, and Fiona S. L. Brinkman
29. **InnateDB – Facilitating Systems Level Analyses of the Mammalian Innate Immune Response** – David J. Lynn, Geoffrey L. Winsor, Aaron Barsky, Jennifer L. Gardy, Fiona M. Roche, Timothy H. W. Chan, Matthew R. Laird, Calvin Chan, Nicholas Richard, Naisha Shah, Raymond Lo, Misbah Naseer, Jaimmie Que, Melissa Yau, Michael Acab, Dan Tulpan, Matthew Whiteside, Kirsten Hokamp, Tamara M. Munzner, Bernadette Mah, Robert E. W. Hancock, and Fiona S. L. Brinkman
30. **Oweekeno Lake sockeye salmon: evidence of critical habitat in the downstream fjord** – Rick Routledge, Laurie Ainsworth, Seana Buchanan, Jiguo Cao, Aaron Springford, Ron Tanasichuk, and Desirée Tommasi
31. **Elliptic curves with isomorphic  $p$ -torsion groups for small  $p$**  – Kevin Doerksen
32. **Representation of Time-Varying Shapes** – Ali R. Khan and Mirza Faisal Beg