Submittee: Nils Bruin
Date Submitted: 2012-12-11 12:22
Title: Interdisciplinary aspects of the Riemann zeta function
Event Type: Conference-Workshop

Location:
SFU-Irmacs

Dates:
Nov 2,3, 2012

Topic:
The Riemann hypothesis and computational problems related to it; the interdisciplinary aspects of the Riemann hypothesis stemming from striking similarities between the observed distribution of Riemann zeros and spectra arising in quantum mechanics.

Methodology:
Lectures were given. Lethbridge and Calgary joined in via 2-way video conferencing. Additionally, the lectures were streamed via the Irmacs website. Michael Berry's lecture included multi-media components. The schedule featured ample time for informal discussion and collaboration.

Objectives Achieved:
Participants obtained a good idea of the current state of affairs surrounding one of the central problems in current pure mathematics: the Riemann-hypothesis. // Participants gained good current insights in the relationships between random matrix theory, quantum dynamics, and the Riemann hypothesis. // Participants had ample opportunity to network and forge new research collaborations.

Scientific Highlights:
The lectures

Organizers:
Borwein, Peter, Mathematics, SFU // Bruin, Nils, Mathematics, SFU

Speakers:
Dr. Tom Archibald, Mathematics, Simon Fraser University: "The History of Riemann Hypothesis." // Dr. Peter Borwein, Mathematics, Simon Fraser University // Dr. Ron Ferguson, Mathematics, Simon Fraser University: "Pade Approximations, Zeros and the Riemann Hypothesis." // Dr.

Nathan Ng, Mathematics, University of Lethbridge: "The linear independence conjecture for zeros of L-functions." // Dr. Michael Berry, Physics, Bristol: "Riemann and quantum."

Links:
http://www.irmacs.sfu.ca/research/riemann // Some lectures were recorded. Contact Irmacs for information.