

# The IRMACS Centre

## Schedule B Centre Document

### 0. Schedule B Centre

The IRMACS Centre is a Class B University Centre. As such, the decision-making and policymaking process for IRMACS follows the Policies and Procedures (R 40.01) set forward for University Centres and Institutes (see [www.sfu.ca/policies/research/r40-01.htm](http://www.sfu.ca/policies/research/r40-01.htm)).

The IRMACS Centre has a university-wide mandate within the portfolio of the Vice President, Research. IRMACS recognises its obligation to conduct activities in accordance with University policies.

### 1. Description / Vision

The principal vision of the IRMACS Centre is to provide a flexible, collaborative, computationally sophisticated environment at SFU for more than three hundred scientists whose primary laboratory tool is the computer. IRMACS provides an environment that removes traditional boundaries between scientific disciplines, in order to promote novel initiatives. The IRMACS Centre capitalises on SFU's strengths in ground-breaking and interdisciplinary research, together with the expertise of its computationally sophisticated researchers.

The IRMACS Centre fulfills a critical need to house diverse groups of scientists for variable periods of time, by creating a reconfigurable open research facility that efficiently incorporates the community of scientists, research associates, students, and visitors in an adaptive manner.

The IRMACS Centre houses research projects for varying periods, providing physical workspace, state-of-the-art computational and communications resources, and expert technical support. A proportion of the assignable space is set aside for short-term and sabbatical visitors.

Currently the following areas have successful interdisciplinary projects housed in IRMACS: collaborative communications, computational algebra, health informatics, statistical genetics, telecommunications, signal processing, computational genomics, modeling and prediction, optimisation, cryptography and computational number theory.

The IRMACS vision is to help SFU:

- to attract and retain high quality faculty
- to attract and promote high quality research interaction
- to attract and support high quality graduate students
- to attract short-term and sabbatical visitors
- to alleviate some space pressures
- to create new linkages between researchers in different Departments, Schools and Institutions
- to provide a springboard for future large initiatives and grant applications

## **2. Activities**

- support, promotion and housing of high-quality interdisciplinary research groups in the mathematical and computational sciences
- promotion of new scientific projects and collaborations
- provision of state-of-the-art communications resources for scientific collaboration
- provision and co-ordination of significant computational and visualisation resource
- housing of visiting Highly Qualified Personnel for weeks or months
- co-ordination and provision of space for lecture series
- provision of facilities for moderate-sized meetings, workshops, research conferences and related activities

## **3. Management**

See Management Structure document below.

## **4. Funding Sources**

Canada Foundation for Innovation (CFI)

British Columbia Knowledge Development Fund (BCKDF)

Simon Fraser University – VP Research, VP Academic, Dean of Science

In-kind contributions from various vendors

Granting Agencies – long term

## **5. Budget implications / Library needs**

Ongoing funding development / Minimal

# The IRMACS Centre Management Structure

The accompanying diagram shows the management structure of the IRMACS Centre.

## Management Committee

The Management Committee is responsible for overall running, policy setting, and making recommendations on allocation of resources (including space) to projects and to visitors. This committee comprises 10 members:

Executive Director & Project Leader  
Managing Director  
Research Director  
Technical Director

plus a minimum of 4 elected faculty members, at least one of which is from each of the Faculty of Science, the Faculty of Applied Sciences and the Faculty of Health Sciences. The electorate is the Membership (see below).

The IRMACS Centre Management Committee is made up of:

Peter Borwein	Project Leader & Executive Director
Pam Borghardt	Managing Director
Felix Breden	Faculty of Science
Brian Corrie	Technical Director
Ramo Gencay	Department of Economics
Uwe Glaesser	School of Computing Science
Veselin Jungic	Research Director
Lionel Tolen	Past Director, ACS
Ljiljana Trajkovic	Faculty of Applied Sciences
Les Vertesi	Faculty of Health Sciences

The Management Committee may obtain advice on the scientific merit of proposals, devising its own procedures to consult disinterested scientific advisors. It then makes recommendations to the Board of Trustees. The Management Committee sets up groups to deal with specific tasks as required, for example identifying new interdisciplinary opportunities.

## Board of Trustees

The Board of Trustees has an oversight role, particularly regarding University interests. It does not make policy, but can require the Management Committee to reconsider decisions. The current voting members of the IRMACS Centre Board are:

Dean of Science  
Dean of Applied Sciences  
Dean of Health Sciences  
Associate VP Research

The Executive Director, the Managing Director, and the Research Director, together with other appropriate staff, may attend meetings of the Board to assist information flow, but do not have a vote.

The Board members themselves determine any changes to the composition of the Board, in consultation with the Management Committee.

## **External Review Committee**

The primary role of the external review committee is to forge and maintain extramural connectivity. The members are consulted on all major initiatives particularly those of regional, national and international scope. The External Advisory Committee consists of representatives from a cross-section of international, interdisciplinary, academic professionals including:

David Baillie, Lawrence Berkeley National Laboratory  
Heinz Bauschke, University of British Columbia, Okanagan  
Jonathan Borwein, Dalhousie University  
Pierre Boulanger, University of Alberta  
Ron Graham, University of California, San Diego  
Kevin Hare, University of Waterloo  
Fadil Santosa, Institute of Mathematics and its Applications  
Hugh Williams, University of Calgary

## **VP Research**

The IRMACS Centre is a formally constituted Class B University Centre reporting to the VP Research.

## **Membership**

The Membership of IRMACS will ratify important decisions such as appointment of a new Research Director, changes to the composition of the Board of Trustees, or significant changes of direction for the IRMACS Centre.

The Membership of IRMACS comprises all faculty members with a direct interest in IRMACS (as determined by the Management Committee) together with non-faculty from each current IRMACS project as appropriate.

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