

National Strategic Review of Mathematical Sciences Research in Australia

The Working Party Tour, February 2006

The Working Party undertook a national tour with the international reviewers in February 2006. The limited availability of the international reviewers meant that it was not possible to bring all three international reviewers to each city visited and all three international reviewers were simultaneously present only in Sydney and Melbourne. To encourage representation from regional universities more than three hours drive from a meeting site, the review provided return air tickets for nominated representatives.

People who met with the Working Party are listed under the name of their company or institution. The list does not precisely correspond to the attendance at meetings as individuals from different companies or institutions were sometimes seen together to enable discussion of broader issues.

At the request of the international reviewers after their arrival in Australia, additional meetings with graduate students, postdoctoral fellows and junior academic staff were scheduled at short notice and for practical reasons those invited were usually from the host institution.

In the schedule, members of the Advisory Council are indicated by an asterisk (*) and members of the 1995 Review Working Party are indicated by a dagger (†). For the first week of the tour, the Working Party was enlarged to include the Chair of the Advisory Council, Professor Michael Cowling. The enlarged Working Party consisting of nine members had the following composition:

Professor Jean-Pierre Bourguignon (International Reviewer)

Dr Brenda Dietrich (International Reviewer)

Professor Iain Johnstone (International Reviewer)

Professor Peter Hall

†Dr Edwin van Leeuwen

Ms Jan Thomas

Professor Hyam Rubinstein (Chair, Working Party)

Associate Professor Barry Hughes (Executive Director)

*Professor Michael Cowling (Chair, Advisory Council)

13 February 2006: Sydney

The hosts were CSIRO Mathematics and Information Sciences and Department of Mathematical Sciences, University of Technology Sydney and the enlarged Working Party of nine attended all meetings. The first two hours of meetings were with CSIRO, emphasising the Review's concern to give proper attention to non-University stakeholders.

CSIRO Mathematical and Information Sciences

*Dr Murray Cameron (Chief of Division)

Dr Mohan Krishnamoorthy

Dr Mark Berman

Mr Kevin Cryan (Manager, Business Development and Commercialisation)

Dr Frank de Hoog

Dr Rob Dunne

Canon Information Systems Research Australia

Dr Phil Robertson (Director)

Centre for Epidemiology and Research, NSW Health Department

Dr David Muscatello

Macquarie University

Department of Mathematics

Professor Paul Smith (Head)

Professor William Chen

Professor Ross Street

†Emeritus Professor Alf van der Poorten (Chair, 1995 Review Working Party)

Department of Statistics

Professor Graham Wood (Head)

School of Mathematics and Statistics, University of Sydney

Professor Neville Weber
Associate Professor Charlie Macaskill

Professor Gus Lehrer

School of Mathematics, University of New South Wales

Professor Anthony Dooley (President, Academic Board, UNSW)
†Professor Ian Sloan (President, International Council for Industrial & Applied Mathematics)

**Department of Mathematical Sciences, University of Technology
Sydney**

Dr Tim Langtry (Head)
Prof Deborah Jane Street

Professor Lindsay Botten
Dr Kokou Dossou

14 February 2006: Sydney

The hosts were CSIRO Mathematics and Information Sciences and Department of Mathematical Sciences, University of Technology Sydney and the enlarged Working Party of nine attended all meetings. The schedule emphasised the needs of professional societies, and the challenges faced by outer-suburban, regional and rural universities.

Institute of Actuaries of Australia

Ms Catherine Baldwin (Chief Executive Officer)
Mr Martin Stevenson (President)

Mr Tim Jenkins

Australian Computer Society Incorporated

Mr Dennis Furini (Chief Executive Officer)

Statistical Society of Australia Incorporated

*Professor Kaye Basford (President)

School of Mathematics, University of New South Wales

Professor William Dunsmuir
Associate Professor Rob Womersley

Professor Matt Wand
Dr Astrid an Huef

School of Quantitative Methods & Mathematical Sciences, University of Western Sydney

Associate Professor Richard Ollerton

Department of Mathematics & Statistics, Charles Sturt University

Dr John Louis

School of Mathematical & Physical Sciences, University of Newcastle

Associate Professor Brailey Sims

School of Mathematics & Applied Statistics, University of Wollongong

Professor Graham Williams

Dr Rod Nillsen

School of Mathematics, Statistics & Computer Science, University of New England

Associate Professor Yihong Du

15 February 2006: Hobart

Host: School of Mathematics and Physics, University of Tasmania

Emphasis was given to research and advanced mathematical services in fisheries, environmental studies and Antarctic studies. Time was allocated for extensive discussions with academic staff at levels A–C and with graduate students.

Working Party members in attendance

Dr Brenda Dietrich (International Reviewer)

Professor Peter Hall

*Professor Michael Cowling (Chair, Advisory Council)

School of Mathematics and Physics, University of Tasmania

Academic or Research Staff

Professor Larry Forbes (Head of School)

Dr Simon Wotherspoon

Mr Chris Hollitt

Dr Michael Brideson

Dr Melanie Johnstone-Hollitt

Dr Kumudini Dharmadasa

Graduate Students

Mr Peter While

Mr Paul Burch

Ms Robyn Thompson

Quantitative Marine Science Program, University of Tasmania and CSIRO Marine and Atmospheric Research

Professor Richard Coleman

Dr Trevor McDougall

Australian Antarctic Division

Dr Roland Warner (Glaciology)

Dr Damian Murphy (Space and Atmospheric Sciences)

Dr Andrew Constable (Fisheries Modelling)

AQ1 Systems (incorporating Sonar Data)

Dr Tim Pauly (Director, Business Development)

15 February 2006: Canberra

Host: Australian Bureau of Statistics

Working Party members in attendance

Professor Jean-Pierre Bourguignon (International Reviewer)

Ms Jan Thomas

Associate Professor Barry Hughes (Executive Director)

Australian Bureau of Statistics

The Australian Statistician, Mr Dennis Trewin

The First Assistant Statistician, Mr Geoff Lee

Ms Teresa Dickinson

Mr David Whitelaw

Australian Research Council

Professor Erich Weigold (Executive Director for Physics, Chemistry and Geoscience and for the Centres of Excellence Scheme)

Australian Academy of Science

Professor Kurt Lambeck (President-elect and former Foreign Secretary)

Australian Chamber of Commerce and Industry

Mr Michael Potter (Director, Economics and Taxation)

CSIRO

†Professor Michael Barber (Executive Director, Science Planning)

Mathematical Sciences Institute, Australian National University

Academic Staff

Professor Neil Trudinger

Professor John Hutchinson

Professor Alan Welsh

†Professor Derek Robinson

Research Fellows

Dr Lucia Santoso

Dr Pierre Portal

Graduate Students

Mr Brett Witty

Mr Huy Nguyen

School of Finance and Applied Statistics, Australian National University

Associate Professor Michael Martin

Associate Professor Ross Maller

Department of Applied Mathematics, Australian National University

Associate Professor David Williams

School of Information Sciences & Engineering, University of Canberra

Dr Mary Hewitt (Head of Discipline, Mathematics and Statistics)

Dr Peter Vassiliou

Dr Shuanghe Liu

School of Physical, Environmental & Mathematical Sciences, Australian Defence Force Academy

Professor Rowland Sammut (Discipline Coordinator, Mathematics)

Dr Geoff Mercer

15 February 2006: Brisbane

Host: Queensland University of Technology

Venue: 111 George St and Building B, Gardens Point Campus, QUT

Working Party members in attendance

Professor Iain Johnstone (International Reviewer)

Dr Edwin van Leeuwen

Professor Hyam Rubinstein (Chair, Working Party)

Office of the Queensland Chief Scientist

Professor Peter Andrew AO, Queensland Chief Scientist

School of Mathematical Sciences, Queensland University of Technology

Professor Tony Pettitt (Head)

Professor Kerry Mengerson

Professor Ian Turner

Professor Sean McElwain

Professor Helen MacGillivray

School of Science, Griffith University

Associate Professor Peter Johnston

Dr Tony O'Connor

School of Mathematics & Computing, University of Southern Queensland

Associate Professor Ron Addie
Professor Tony Roberts

Dr Sergey Suslov

0.0.1 Faculty of Engineering, Physical Sciences & Architecture, University of Queensland

Professor John Ecclestone (former Executive Dean)
Professor Tony Bracken (Head of Discipline of Mathematics)
Professor Kevin Burrage
Professor Phil Pollett

Professor Geoff McLachlan
Professor Mark Gould

Faculty of Biological & Chemical Sciences, University of Queensland

Professor Sean Smith (Director, Centre for Computational Molecular Science)
Professor Hugh Possingham (Director, The Ecology Centre)

Faculty of Business & Informatics, Central Queensland University

Associate Professor Russel Stonier

School of Mathematical & Physical Sciences, James Cook University

Associate Professor Wayne Read

16 February 2006: Melbourne

Host: University of Melbourne

Venues: Richard Berry Building and University House

Except for the session with staff from Monash University, from which several people were absent, the enlarged Working Party of nine attended all meetings.

ANZ Banking Group

Dr David O'Brien (Head of Treasury Market Risk)

Mr Steven Aney (Senior Manager, Risk Quantification and Data Management)

Victorian Partnership for Advanced Computing

Professor Bill Appelbe (Chief Executive officer)

Australia Post

Ms Bonnie Douglas

Australian Academy of Technological Sciences & Engineering

Mr Peter Laver AM (Vice President)

Professor Vaughan Beck (Technical Director)

Professor Fred Smith AM (Honorary Secretary)

Dr Ian Mair

Dr Robert Hobbs

Dr Michael Murray

School of Computer Science & Mathematics, Victoria University

Associate Professor Peter Cerone (Head)

Professor Sever Dragomir

Department of Mathematical & Statistical Sciences, Latrobe University (Bendigo Campus)

Dr Christopher Lenard (Head of Mathematics)

Professor Terry Mills

School of Mathematical & Geospatial Sciences, RMIT University

Professor John Hearne (Head)

Swinburne University

Mr Chris Barling

Mr Patrick Tobin

School of Information Technology, Deakin University

Professor Lynn Batten

School of Mathematical Sciences, Monash University

Associate Professor Alan Pryde (Head)

Professor Robert Bartnik

Professor Paul Cally

17 February 2006: Melbourne

Host: University of Melbourne

Venues: Richard Berry, ICT and Alan Gilbert Buildings, and University House.

The enlarged Working Party of nine attended most meetings.

National Australia Bank

Dr Volf Frishling

Mr Steve McCarthy

Statistical Society of Australia, Inc.

*Dr Neville Bartlett (Past-President)

Combinatorial Mathematics Society of Australasia

Dr Ian Wanless (Vice-President)

The Allen Consulting Group

*Dr Les Trudzik

NORCA Consulting

Dr Harry Gielewski

Department of Mathematical & Statistical Sciences, Latrobe University (Bundoora Campus)

Associate Professor Grant Cairns (Head of Mathematics at Bundoora)

Department of Mathematics & Statistics, University of Melbourne

Staff

Professor Richard Huggins

Professor Peter Taylor (Head)

Associate Professor Natasha Boland

Associate Professor Aleks Owczarek

Associate Professor Ian Gordon

Dr Steven Carnie

Graduate students

Ms Loretta Bartolini

Mr Paul Fijn

Ms Ruth Luscombe

Mr Chris Fricke

Ms Maya Ramakrishnan

Ms Maya Muthaswamy

Ms Diana Zannino

Department of Computer Science & Software Engineering, University of Melbourne

Professor Leon Sterling

e-Research Centre, Monash University

Professor Ah Chung Tsoi (Director)

Professor Tsoi is the former Executive Director for Mathematics, Information and Communication Sciences, Australian Research Council.

Australian Mathematical Sciences Institute

*Professor Phil Broadbridge (Director)

International Centre of Excellence for Education in Mathematics

*Professor Garth Gaudry (Director)

Centre of Excellence for the Mathematics & Statistics of Complex Systems

Professor Tony Guttman (Director)

20 February 2006: Perth

Host: Curtin University of Technology

Venue: Graduate School of Business, Perth City Campus

Working Party members in attendance

Dr Brenda Dietrich (International Reviewer)

Professor Iain Johnstone (International Reviewer)

Professor Hyam Rubinstein (Chair, Working Party)

Associate Professor Barry Hughes (Executive Director)

Australian Society for Operations Research

*Professor Lou Caccetta

School of Engineering & Mathematics, Edith Cowan University

Associate Professor Lyn Bloom (Mathematics Coordinator)

Dr Ute Mueller

School of Engineering Science, Murdoch University

Professor Ian James

Dr Brenton Clarke

Professor Walter Bloom

Dr Mark Lukas

Department of Mathematics & Statistics, Curtin University of Technology

Professor Kok Lay Teo

School of Mathematics & Statistics, University of Western Australia

Associate Professor Les Jennings (Head)

Professor Andrew Bassom

Dr Michael Giudici

Professor Cheryl Prager

Professor Adrian Baddeley

Data Analysis Australia

Dr John Henstridge (Director)

Dr Linda Eaton

CSIRO Exploration and Mining

Dr Alison Ord
Dr Regan Patton

Dr Peter Hornby
Mr Thomas Poulet

21 February 2006: Adelaide

Hosts: School of Mathematics and Statistics, University of South Australia; and School of Mathematics and Statistics, University of Adelaide.

Venues: School of Mathematics and Statistics, University of South Australia; and University of Adelaide Club.

Working Party members in attendance

Dr Brenda Dietrich (International Reviewer)
Professor Iain Johnstone (International Reviewer)
Professor Hyam Rubinstein (Chair, Working Party)
Associate Professor Barry Hughes (Executive Director)
Ms Jan Thomas

School of Mathematics and Statistics, University of South Australia

Associate Professor David Panton (Head of School)
Professor Jerzy Filar
Professor Phil Howlett

Professor Vladimir Gaitsgory
Associate Professor Irene Hudson

School of Mathematical Sciences, University of Adelaide

Professor Michael Murray (Head of School)
Professor Nigel Bean

Dr Gary Gloneck

Additional University of Adelaide staff who spoke with the Working Party at a forum included Dr Bob Clarke, Associate Professor Jim Denier, Professor Michael Eastwood and Dr Peter Gill.

22 February 2006: Adelaide

Host: School of Mathematics and Statistics, University of Adelaide

Venue: University of Adelaide Club.

Working Party members in attendance

Dr Brenda Dietrich (International Reviewer)
Professor Hyam Rubinstein (Chair, Working Party)
Associate Professor Barry Hughes (Executive Director)
Ms Jan Thomas

Defence Science Technology Organisation

Dr Warren Marwood (Research Leader, Secure Communications, Intelligence Surveillance and Reconnaissance Division)

Dr Alexei Filinkov (Defence Systems Analysis Division)

Dr Josef Zuk (Air Operations Division) [by telephone link]

Dr Vladimir Ivancevic (Land Operations Division)

Dr Gary Newsam (Intelligence Surveillance and Reconnaissance Division)

Science, Technology and Innovation Directorate, South Australian Government

Dr Mary Rieger (Senior Policy Officer)

Halcro Audio

Dr Bruce Candy

SolveIT Software

Mr Matthew Michaelewicz (Chief Executive Officer)

Sydac Pty Ltd

Mr Tony Gibb (Director)

School of Engineering & Logistics, Charles Darwin University

Dr Ian Roberts

Ian Wark Research Institute, University of South Australia

Professor Roger Horn