

Appendix A:

PIMS Management

Board of Directors

The Board of Directors has final responsibility for all aspects of the PIMS' operation. In particular, the Board ensures fiscal accountability, monitors the operation of the PIMS, and advises the Executive Committee.

Chair of the Board: Dr. Hugh Morris holds a Ph.D in Mining Geology from the University of Witwatersrand, Johannesburg, South Africa and has 44 years of experience in the mineral industry. He is a fellow of the Royal Society of Canada and is Chair of the Society's Canadian Global Change Programme.

From 1962 to 1979 he held a series of positions with Cominco Ltd. in its Exploration and Mining Departments in several Canadian locations, eventually becoming Director of Exploration for its worldwide activities. In 1979 Dr. Morris became associated with the E & B-Geomex Group of affiliated companies in Calgary, initially as President and Chief Operating Officer of Geomex Minerals Ltd., and in 1981, as President and Chief Executive Officer of E & B Canada Resources Ltd. Following the merger of the E & B-Geomex Group and Imperial Metals Corporation of Vancouver in May 1983, he was appointed Chairman and Chief Executive Officer of Imperial Metals and of three public companies within the Imperial Metals Group. He resigned from these positions in February 1993 to pursue other interests. Currently, he is a mineral industry consultant and board member of six Canadian public companies.

Dr. Morris has demonstrated special interest in national and international scientific and professional associations. He is a member of NSERC's Council, a member of the Standing Finance committee of ICSU, and Chairman of the Board of Directors of the Lithoprobe Project. He is past-president of both the Geoscience Council of Canada and the Geological Association of Canada, and was also Treasurer of the Canadian Geological Foundation from 1987 to 1996. He is a member of the Geological Society of London, the Institute of Mining and Metallurgy, U.K., the Canadian Institute of Mining and Metallurgy, the Association of Professional Engineers of BC and a number of other scientific and professional associations.

Dr. Michael Boorman received his PhD from University of Nottingham in 1964 and is a professor in the Chemistry Department at the University of Calgary. Currently he is the Dean of Science at the University of Calgary. Dr. Boorman's research activities are in *Inorganic Chemistry* and in *Heterogeneous Catalysis*.

Dr. Bruce Clayman received his PhD from Cornell University in 1968. He is currently a professor of Physics at Simon Fraser University as well as the Vice-President Research. His past administrative duties include Dean of Graduate Studies, President of the Canadian Association for Graduate Studies and Acting Dean of Science. He is a member of the Sigma Pi Sigma Physics Honour Society. His research interests include superconductors, impurity states in solids, and layered compounds. He has published over 80 papers in refereed journals and refereed conferences.

Dr. James Delgrande is a Professor of Computing Science at Simon Fraser University and he is the Director of the School of Computing Science. He received his Ph.D. from the University of Toronto in 1985. His research is in formal aspects of knowledge representation in artificial intelligence.

Dr. Don W. Denney received his Ph.D. from the University of Waterloo in 1978 and spent two years as a post-doctoral fellow at the University of Colorado engaged in atmospheric chemistry studies and in developing statistical pattern recognition techniques. He is a Director of PRECARN/IRIS, serving as a Board Chair for 1999/2000.

Dr. Denney is Manager, Information Services at Syncrude Canada-Ltd, providing telecommunications and computing infrastructure for Syncrude's operations in Fort McMurray, Alberta. Dr. Denney spent 10 years at Syncrude Research developing On-line Sensors and applying Pattern Recognition techniques to data analysis. His current interest is information management to support condition-based maintenance programs.

Mr. Kenneth Foxcroft served on the board of Directors of Factors Limited, Toronto Dominion Securities

(USA) Inc., and of the Ontario Securities Advisory Commission. He has also held the positions of Chairman for Commodity Futures and President for the Forex Association of Canada. Presently, Mr. Foxcroft is the Deputy Chairman & Chief Trading Officer for TD Securities Inc.

Dr. Nassif Ghousseub is a Professor of Mathematics at the University of British Columbia. He did his undergraduate degree at the Lebanese University in Beirut and obtained his Doctorat d'état in 1979 from the Université Pierre et Marie Curie in Paris. He is a fellow of the Royal Society of Canada and is the current Director of the Pacific Institute for the Mathematical Sciences. His present research interests are in non-linear analysis and partial differential equations.

He was the recipient of the Coxeter-James prize in 1990 and of a Killam senior fellowship in 1992. He was chair of NSERC's grant selection committee for mathematics in 1995-1996 and vice-president of the Canadian Mathematical Society from 1994 to 1996. He is on the editorial board of various international journals and is currently the co-Editor-in-Chief of the Canadian Journal of Mathematics.

Dr. Maria Klawe is currently the Dean of Science at the University of British Columbia, having served as Head of the Department of Computer Science from 1988 to 1995 and Vice-President of Student & Academic Services from 1995 to 1998. Her responsibilities as the Dean of Science are the leadership of the Faculty of Science. Dr. Klawe also holds the NSERC-IBM Chair for Women in Science and Engineering, one of five regional chairs across Canada. Dr. Klawe's chair is responsible for British Columbia and the Yukon, and emphasizes increasing the participation of women in information technology careers.

Prior to joining UBC, Dr. Klawe spent eight years with IBM Research in California, and two years at the University of Toronto. She received her Ph.D. (1977) and B.Sc. (1973) in Mathematics from the University of Alberta. She has made significant research contributions in several areas of mathematics and computer science including functional analysis, discrete mathematics, theoretical computer science, and interactive-multimedia for mathematics education. She is the founder and director of the Electronic Games for Education in Math and Science (E-GEMS) project, a large-scale collaborative project involving computer scientists, mathematics educators, teachers, children and professional game developers. She has also served on many boards and advisory councils, including the Board of Trustees of the American Mathematical Society (chair 1995-96), the Computing Research Association (vice-chair 93-95), and the BC Premier's Advisory Council on Science and Technology (93-present). Dr. Klawe was elected as a Fellow of the Association of Computing Machinery in 1995, and received the Vancouver YWCA Women of Distinction Award in Science and Technology in 1997.

Dr. Prabha Kundur holds a Ph.D in Electrical Engineering from the University of Toronto and has over 30 years of experience in the electric power industry. He is currently the President and CEO of Powertech Labs Inc., the research and technology subsidiary of BC Hydro. Prior to joining Powertech in 1993, he worked at Ontario Hydro for 25 years and was involved in the planning, design and operation of power systems.

He has served as Adjunct Professor at the University of Toronto since 1979 and at the University of British Columbia since 1994. He is the author of the book *Power System Stability and Control* (McGraw-Hill, 1994), which is the standard modern reference for the subject. He has performed extensive international consulting and has delivered technical courses for utilities and universities around the world.

Dr. Kundur is a Fellow of the Institute of Electrical and Electronic Engineers (IEEE). He is also very active in the Conference Internationale des Grands Réseaux Electriques (CIGRE). He is the recipient of the 1997 IEEE Nikola Tesla Award and the 1999 CIGRE Technical Committee Award.

Dr. Peter Lancaster is a Professor Emeritus and Faculty Professor in the Department of Mathematics and Statistics of the University of Calgary. He has doctoral degrees from the University of Singapore and the University of Liverpool, England, as well as five years experience in the aircraft industry in the 1950's. He came to Canada in 1962 and was elected to the Royal Society of Canada in 1984. His research interests are in matrix and numerical analysis especially as applied to vibrations, systems theory, and signal processing. He is the author or co-author of several texts and monographs and serves on a number of editorial boards. He has completed terms as Vice-President and as President of the Canadian Mathematical Society, and as Vice-President of the Canadian Applied Mathematics Society. He has also served (or is serving) on numerous committees of NSERC and the Royal Society of Canada.

Dr. Barry McBride is the Vice-President Academic and Provost of the UBC since 1999. He received his Ph.D. from the University of Illinois (Urbana) in 1970. He was the Dean of Science at the University of British Columbia from 1990 to 1999, Department Head of the Microbiology Department at UBC from 1986 to 1989 and Department Head of the Oral Biology Department at UBC from 1981 to 1986. He has consulted with Cominco, Energy Mines and Resources Canada, the National Institute of Health, USA and Ventures West. He is a member of many Professional Committees including the Medical Research Council (where he is also on the Executive Committee), the Standing Committee on Manpower (MRC), Scientific Advisory Council - Alberta Council - Alberta Heritage Foundation for Medical Research and the Canadian Institute for Advanced Research - Research Advisory Council. His major area of research is in ecology and pathogenesis of the microbial flora of man with specific reference to pathogens of the mouth.

Dr. Edwin Perkins is Professor of Mathematics at the University of British Columbia where he was first appointed as a postdoctoral fellow in 1979. He did his undergraduate degree at U. of Toronto and obtained his doctoral degree from the U. of Illinois. His research interests in probability include the general theory of processes, Brownian motion, stochastic differential equations and partial differential equations, interacting particle systems, measure-valued diffusions and stochastic models in population genetics. He has won numerous awards for his research including the Coxeter-James Lectureship (1986) and G. de B. Robinson Award (1996) (Canadian Math. Society), the Rollo Davidson Prize (1983) (Cambridge U.) and a Steacie Fellowship (1992-93) (NSERC). He is a Fellow of the Royal Society of Canada and currently sits on the Academy of Science Council. He is presently on the editorial boards of the Canadian J. of Mathematics, the Annals of Applied Probability, the Annales de l'Institut Henri Poincaré, and Probability Theory and Related Fields. He has given several invited lectureships including an invited address at the 1994 International Congress of Mathematicians in Zurich.

Dr. Richard E. Peter received a B.Sc. in Biology from the Univ. of Calgary in 1965 and a Ph.D. from the Univ. of Washington in 1969. Following postdoctoral research in Pharmacology at the University of Bristol, he took up an appointment in the Department of Zoology, University of Alberta, in 1971. Promoted to Professor in 1979, he served as Chairman of Zoology from 1983-1992, and became Dean of Science in 1992. His research is on the brain regulation of reproduction and growth in fish, an area in which he has over 260 publications. Dr. Peter has received numerous honours and awards, including the E.W.R. Steacie Memorial Fellowship in 1980, election as a Fellow of the Royal Society of Canada in 1985 and the Pickford Medal for outstanding contributions to comparative endocrinology. A kit to induce spawning of farmed fish, based on his research, is marketed as OVAPRIM by Syndel Laboratories Ltd., Vancouver.

Dr. Martin Taylor has a BA in Geography from the University of Bristol (UK), and an MA and PhD from the University of British Columbia. He was appointed at McMaster in 1974. He was Chair of Geography (1991-1997), founding Director of the Institute of Environment and Health (1991-96), and Acting Vice-President Research (1994-95). His research and teaching interests focus on environmental health and health promotion issues. His ongoing projects include research on the psychosocial effects of environmental contamination and on community-based heart health promotion. He has authored one book and over 100 papers in peer-reviewed journals. He moved to UVic in July 1998 to be the University's first Vice-President Research as well as being a full professor in the Geography Department.

The *Steering Committee* of the Board consists of D. Peter (Chair), J. Delgrande, N. Ghoussoub, P. Lancaster, M. Taylor and E. Perkins.



PIMS Board member and Provost & VP Academic of UBC, Dr. Barry McBride

Scientific Review Panel

The Scientific Review Panel is responsible for:

- The review and selection of scientific programmes and determination of their funding levels
- The selection of PIMS Distinguished Chairs and *The PIMS Research Prize*.
- Provide advice on long-term scientific planning for PIMS.

Nassif Ghoussoub, Director of PIMS, serves as the chair of the Scientific Review Panel. Members of the Panel include the following:

David Boyd received his Ph.D. in Mathematics from the University of Toronto in 1966. At that time he worked in harmonic analysis and in particular interpolation theory for rearrangement invariant spaces. Subsequently his work shifted into number theory, particularly the theory of Pisot and Salem numbers and Mahler's measure. He is particularly interested in the role of computation in pure mathematics. After his Ph.D., he spent a year at the University of Alberta, then moved to the California Institute of Technology where he spent the next four years, and finally moving to the University of British Columbia where he has been a Professor of Mathematics since 1974. He was awarded the 1978 E.W.R. Steacie Prize in Science for his work on Pisot sequences and Salem numbers. He was the Canadian Mathematical Society's Coxeter-James lecturer for 1979 and was elected to the Royal Society of Canada in 1980.

David Brillinger is a researcher in the area of time series, which involves him in the analysis of random processes in the biological and physical sciences. He has made contributions to the theory and application of statistical methods in subject areas including neurophysiology (the analysis of neural spike trains), seismology, and demography. He is the author of *Time Series Analysis: Data Analysis and Theory*, former editor of the *International Statistical Review*, and current President of the Institute of Mathematical Statistics. He is a member of the American Academy of Arts and Sciences and is a Fellow of the Royal Society of Canada.

Richard Ewing is Dean of the College of Science and Professor of Mathematics and Engineering at Texas A & M University. He also is Director of the Institute for Scientific Computation and the Academy for Advanced Telecommunications & Learning Technologies at Texas A & M. Prof. Ewing is an expert in scientific computation. His recent research deals with the multitude of problems that arise from numerical simulation and modeling of multiphase flow and transport in porous media

as applied to ground water contaminants and reservoir modeling. He has an extensive background in consulting/advising with the public and private sector especially the petroleum industry.

Ronald Graham is currently Chief Scientist of AT&T Research. He was President of the American Mathematical Society from 1993-95. His other current obligations include: membership of the Scientific Advisory Committee of the Santa Fe Institute, of the National Research Council, Mathematical Sciences Education Board, and of the Joint Policy Board on Mathematics. He is Treasurer of the National Academy of Sciences (1996-2000). Dr. Graham's academic awards include: Membership in the National Academy of Sciences and Fellowships in the American Academy of Arts & Sciences, the New York Academy of Sciences, and the American Association for the Advancement of Science. He was the Scientist of the Year, World Book Encyclopedia in 1981, and won the Polya Prize in Combinatorics in 1972, the Carl Allendorfer Award of the Math. Assoc. of America in 1990, a Lester Ford Award of the Math. Assoc. of America, in 1991, and the Euler Medal of the Institute of Combinatorics in 1994. Ron Graham's current mathematical interests include combinatorics, number theory, graph theory, discrete and computational geometry, theoretical computer science, and applications thereof. In all of these areas he has made fundamental contributions. He is also a very gifted juggler.

Richard M. Karp was born in Boston, Massachusetts in 1935 and was educated at the Boston Latin School and Harvard University, where he received his Ph.D. in Applied Mathematics in 1959. From 1959 to 1968 he was a member of the Mathematical Sciences Department at the IBM Thomas J. Watson Research Center. From 1968 to 1994 he was a professor at the University of California, Berkeley. From 1988 to 1995 he was also associated with the International Computer Science Institute in Berkeley. In 1994 he retired from Berkeley and was named University Professor (Emeritus). In 1995 he moved to the University of Washington, where he has appointments in Computer Science and Molecular Biotechnology. The unifying theme in Karp's work has been the study of combinatorial algorithms. His 1972 paper "Reducibility Among Combinatorial Problems," demonstrated the wide applicability of the concept of NP-completeness. Much of his subsequent work has concerned the development of parallel algorithms, the probabilistic analysis of combinatorial optimization problems, and the construction of randomized algorithms for combinatorial problems. His current research is concerned with strategies for sequencing the human genome. Karp has received the U.S. National Medal of Science, Turing Award (ACM), the Fulkerson Prize (AMS and Math. Programming Society), the von Neumann Theory Prize (ORSA-TIMS), the Lanchester Prize (ORSA) the von Neumann Lectureship (SIAM) and the Distinguished Teaching Award (Berkeley). He is a member of the National Academy of Sciences and the National Academy of Engineering, and holds four

honorary degrees.

Alistair Lachlan obtained his Ph.D. from the University of Cambridge in 1964 and is currently a Professor of Mathematics at Simon Fraser University. Prof. Lachlan was elected as a Fellow of the Royal Society of Canada in 1974. He has served as the Vice-President of the Canadian Mathematical Society (1985–1987), was a member of the NSERC math GSC (1984–1987), was a member of the selection panel for speakers in Mathematical Logic at the 1990 ICM, and served on the steering committee for the CRM (1991–1995). He is and has been an editor for a number of journals including annals of pure and applied logic and the lecture notes in logic.

Bernard J. Matkowsky presently holds the John Evans Chair in Applied Mathematics at Northwestern University. He received his Ph.D. from New York University in 1966. He was at Rensselaer Polytechnic Institute until 1978 and has been at Northwestern University since then. He is the editor of 7 journals (SIAM J. Appl. Math., European J. Appl. Math., Int'l. J. Wave Motion, Random and Computational Dynamics, J. Materials Synthesis and Processing, Int'l. J. SHS, Applied Math. Letters) and one book series (Springer Appl. Math. Sci. series). His honors include being a Fulbright-Hayes Fellow in 1972–1973 and a Guggenheim Fellow in 1982–1983. His research areas include asymptotic and perturbation methods for ordinary and partial differential equations, nonlinear stability and bifurcation theory, stochastic differential equations, and applications to fluid dynamics, elasticity, combustion, flame propagation, and solid state physics.

Robert V. Moody is Professor of Mathematics at the University of Alberta. He received his Ph.D. from the University of Toronto in 1966 and spent most of his academic career at the University of Saskatchewan before coming to Alberta in 1989. He is best known for the discovery, independently with V. Kac, and subsequent investigations of the Kac-Moody Algebras, for which he was awarded the 1994–1996 Eugene Wigner Medal jointly with Kac. He has presented both the Coxeter-James Prize Lecture (1978) and the Jeffrey-Williams Prize Lecture (1995) to the Canadian Mathematical Society. He has served nationally on the Scientific Advisory Boards of both the Centre de Recherches de Mathématique and the Fields Institute for Research in the Mathematical Sciences, and on the Council of the Academy of Science, Royal Society of Canada.

Nicholas Pippenger received his Ph.D. from MIT in Electrical Engineering in 1974. Prior to joining UBC Computer Science department as a professor in 1988, he was a staff member at IBM for sixteen years and at Draper Laboratories for three years. For his last two years at IBM he was an IBM Fellow. His other distinctions include a 1991 UBC Killam Research Prize, a 1983 IBM Outstanding Technical Achievement Award, and a 1981 IBM Outstanding Innovation Award. He has pub-

lished over 90 research articles in the theory of computation and communication and discrete mathematics.

Ian F. Putnam received his Ph.D. from the University of California at Berkeley in 1985. He was an NSERC University Research Fellow at Dalhousie University before moving to the University of Victoria where he is currently professor in the Department of Mathematics and Statistics. His research concerns the interactions between topological dynamics and C^* -algebras. He has received the Israel Halperin Prize and the Andre Aisenstadt prize. He is a Fellow of the Royal Society of Canada.

Gordon Slade received his Ph.D. from the University of British Columbia, in Mathematics, in 1984. Before joining UBC Mathematics Department as a professor in 1999, he was a professor in the Mathematics department at McMaster University. He was the 1995 Coxeter-James Lecturer of the Canadian Mathematical Society, and was one of five Canadian mathematicians invited to give addresses at the 1994 International Conference of Mathematicians in Zurich. In joint work with T. Hara, he has given a rigorous proof of the long-standing conjecture that percolation (and also other important models in statistical physics) exhibit mean-field behaviour in high dimensions.

Gang Tian received his Ph.D. from Harvard University in 1988. After positions at Princeton University and the State University of New York at Stony Brook, he went to the Courant Institute of Mathematical Sciences at New York University in 1991 as full professor. He is currently a professor in Massachusetts Institute of Technology. Prof. Tian is a recipient of the Alfred P. Sloan research fellowship (1991–1993). He presented a 45-minutes invited address at the International Congress of Mathematicians in Kyoto in 1990 and the Bergmann Memorial Lecture at Stanford University in 1994. The same year, he received the 19th Alan Waterman Award from the National Science Foundation. In 1996, Prof. Gang Tian received the Veblen Prize of the American Mathematical Society.

Executive Committee

The Executive Committee consists of the Director, the five Site Directors, and other members appointed by the Board as required. The Executive is responsible for the day to day management of the PIMS as delegated by the Board.

Director: Nassif Ghossoub, (UBC, Math)
SFU Site-Dir.: Bob Russell (SFU, Math)
UVic Site-Dir.: Florin Diacu (UVic, Math)
UBC Site-Dir.: Dale Rolfsen (UBC, Math)
UC Site-Dir.: Michael Lamoureux (UC, Math)
UA Site-Dir.: Bryant Moodie (UA, Math)

Education and Communication

Education Facilitator: Klaus Hoechsmann (UBC)

Local Committees

The Local Coordinator for each site is indicated by an asterisk.

University of Victoria:

Kelly Choo
 David Leeming*
 Bill Pfaffenberger

University of BC:

Andrew Adler*
 Phillip Loewen
 Edwin Perkins

Simon Fraser University:

Malgorzata Dubiel*
 Loki Jorgenson
 Rina Zaskis

University of Alberta:

Hans Brungs
 Ted Lewis*
 Andrew Liu

University of Calgary:

Claude Laflamme
 Indy Lagu*

National Programme Committee of the Canadian Mathematical Sciences Institutes

The three Canadian Institutes in the Mathematical Sciences CRM, Fields and PIMS have initiated a new programme for the support of joint activities in the mathematical sciences. This programme is administered by a National Programme Committee, which makes recommendations to the Directors of the three institutes.

The 2000/01 committee consists of:

Chair: Bradd Hart (Deputy Director of the Fields Institute)
 Michael Lamoureux (Deputy Director of PIMS)
 Jacques Belair (Deputy Director of CRM)
 Martin Barlow (Mathematics, UBC)
 Niky Kamran (Mathematics, McGill)
 David Sankoff (CRM)

Appendix B:

Financial Report

The PIMS fiscal year runs from April 1, 2000 to March 31, 2001. In this section we outline the PIMS budget for this fiscal year. PIMS has supported its activities on base funding from:

- The six participating PIMS institutions (SFU, U. of Alberta, UBC, U. of Calgary, U. of Victoria, U. Washington) and the affiliated Institutions (U. of Lethbridge and U. of Northern British Columbia).
- The Government of Canada through the Natural Sciences and Engineering Research Council.
- The Government of Alberta through the Alberta Ministry of Innovation and Science.
- The Government of British Columbia through the Science and Information Technology Agency

PIMS also received substantial contributions from 52 industrial partners for its industrial programs as well as for the PIMS-affiliated MITACS industrial collaborative research projects.

Income for 2000–2001

Each founding university makes an annual cash contribution equivalent to one full time faculty position at the respective university. Also, scientific personnel are released under the PIMS research fellowship programme to provide the scientific leadership in the institute. PIMS is only

required to make up the course buy-out for these individuals. The universities also make considerable in-kind contributions through office space at the five campuses and computer labs.

SFU: SFU made an annual cash contribution of \$75,000. In-kind support in the form of a 4000 square feet research facility is estimated at \$150,000 per annum.

UA: The University of Alberta made an annual cash contribution of \$70,000. In-kind support of offices totals \$60,000.

UBC: The University of British Columbia made an annual cash contribution of \$115,000. In-kind support in the form of a 4800 square feet research facility is estimated at \$150,000 per annum. As well, the university maintains PIMS financial accounts at an estimated in-kind annual cost of \$30,000.

UC: The University of Calgary made an annual cash contribution of \$61,000 and released the Deputy Director half-time. In-kind support of offices totals \$60,000.

UVic: The University of Victoria makes an annual cash contribution of \$60,000. In-kind support of offices totals \$60,000.

UW: The University of Washington made an annual cash contribution of \$74,446 (\$50,000 US) and an in-kind contribution of \$25,000 in administrative support.

ULeth: The University of Lethbridge, as an affiliate university of PIMS, makes annual cash contributions of \$5,000.

\$5,000.

UNBC: The University of Northern British Columbia, as an affiliate university of PIMS, makes annual cash contributions of

MITACS contributions are for the administrative and infrastructural support of the PIMS-affiliated projects, for networking activities as well as for theme meetings and related scientific workshops.

PIMS Total Income
April 1,2000– March 31, 2001

Source	Carry forward	Income 00/01	Operating Funds	In-kind Support
NSERC	83536	630000	713536	
BC (ISTA)	23312	197500	220812	
BC (NCE)	29612	100000	129612	
Alberta (ASRA)	19942	200000	219942	
Universities	83911	0	83911	
SFU.		75000	75000	150000
U Alberta		70000	70000	60000
UBC		115000	115000	180000
U Calgary		61000	61000	60000
U Victoria		60000	60000	60000
U Lethbridge		5000	5000	
UNBC		5000	5000	
U.Washington		74446	74446	25000
MITACS	32000	197000	229000	
Other	55650	53934	109584	
Total	327,963	1,843,880	2,171,843	535,000

Total Operating funds	2,171,843
Reserve fund	50,000
Industrial Funds Received (PIMS+MITACS)	1,172,336

Total Cash Received	3,394,179
Total In-Kind Support	535,000

Industrial funding

PIMS receives substantial industrial funding in support of its programs: The PIMS prizes, its various industrial workshops as well as its industrial postdoctoral fellows. It also manages the

industrial funds provided by various companies to the 11 MITACS collaborative projects associated with PIMS. (See list below)

PIMS/MITACS Industrial Funds				
	Company	Before.March.00	Since.April.00	Total
Project 1	IBM	30,000	–	30,000
	MDSI	25,000	–	25,000
	StemSoft	19,500	15,000	34,500
Project 2	Quatronic	15,000	–	15,000
	Soundlogic	25,000	–	25,000
Project 3	Webdispatchers.com	–	25,000	25,000
	Waterloo Maple	85,000	18,750	103,750
	Workfire Development Corp.	–	20,000	20,000
Project 4	FinancialCAD	22,500	53,000	75,500
	Powerex	25,000	37,000	62,000
	TransAlta	19,000	23,000	42,000
Project 5	CREWES	–	10,000	10,000
	Imperial Oil	–	15,000	15,000
Project 6	NORTEL	120,000	–	120,000
Project 7	Kinetek	15,000	–	15,000
	SmithKline Beecham	10,000	150,000	160,000
	In Silico	38,013	39,543	77,556
	StemCell	5,000	–	5,000
	Bayer	10,000	–	10,000
Project 8	VisionSmart	7,473	–	7,473
	Lockheed Martin	–	98,789	98,789
	Acoustic Positioning Research	–	16,000	16,000
Project 9	Canadian Airline	43,500	43,500	87,000
	BCTEL	43,500	–	43,500
	Telus	–	43,500	43,500
	Workers' Compensation Board	43,500	43,500	87,000
	Vancouver International Airport	–	30,000	30,000
Project 10	Powertech	20,000	–	20,000
	Ballard Power System Inc.	93,000	273,000	366,000
Project 11	Organon Canada	–	20,000	20,000
	Starlab	–	8,141	8,141
	Kinetana	–	27,400	27,400
	National Institute of Health	–	5,941	5,941
Project 12	Monsanto Company	2,920	–	2,920
	Merak	2,000	–	2,000
	Charles Howard & Associates	1,000	–	1,000
Project 13	Imperial Oil	–	4,000	4,000
	McMillam–McGee	–	2,000	2,000
	Michelin	–	2,889	2,889
	Stern Stewart & Co.	–	2,889	2,889
Project 14	Toronto Dominion	–	20,000	20,000
Project 15	MathSoft	–	20,000	20,000
Project 16	Vortek	–	10,000	10,000
Project 17	Schlumberger	–	34,000	34,000
Project 18	Firebird semiconductors	–	2,000	2,000
	Algorithmics	–	2,000	2,000
	IBM	–	2,000	2,000
	Microsoft	–	2,890	2,890
	Dept.of.defense	–	2,000	2,000
	AEC Oil and Gas	–	2,000	2,000
	Perimeter	–	5,000	5,000
	Insightful (*)	–	20,000	20,000
Project 21	Nortel/StatCar	–	12,604	12,604
Project 22	Galdos Systems (*)	–	10,000	10,000
Total		720,906	1,172,336	1,893,242

Other Contributions

In the table above, we have only outlined the operating budget of PIMS. However, this tells only a part of the story since it does not describe the contributions to PIMS scientists and events that did not flow through the PIMS central accounts. Here is a brief description of such indirect contributions.

University Infrastructure: PIMS has offices at all five campuses. Computational facilities and some administration is also provided. The PIMS central office at UBC uses a 4,800 sq.ft research facility that accommodates up to 40 researchers at a time, as well as a scientific computing Lab and a reading room for about 20 researchers. Similarly, SFU has provided PIMS 4,000 sq.ft. of office space that allows up to 20 scientists to be accommodated.

BC/NCE Infrastructure Support: This amounts to over \$180,000 in infrastructure support for the PIMS and MITACS research facilities at the University of British Columbia and Simon Fraser University. These funds are made available through offices of the Vice-president Research at UBC and SFU to match and support the federally funded NCE activities.

Additional support for Industrial PDFs: Much of the industrial support mentioned in the table above goes to the PIMS-affiliated MITACS industrial collaborative projects. In addition, the PIMS con-

tributions to the industrial postdoctoral fellows (\$15K-20K each) have essentially been matched (on a 1 to 1 basis) by the corresponding industrial partners.

Additional support for Scientific PDFs:

The PIMS contributions to the other 22 postdoctoral fellows (\$18,000 each) have essentially been matched (on a 1 to 1 basis) by research grants from their supervisors and by stipends for teaching from their associated departments.

Conference support: Most conferences have also been supported by registration fees and have sometimes been co-sponsored by other organizations.

Corporate support: This has materialized through contributions towards official receptions and banquets connected to the scientific events.

Industrial support: The *Problem Solving Workshop*, the *Workshop on computer security*, the *workshop on coding theory and cryptography* (among others) have also been partially supported by direct and indirect contributions from the industrial participants.

Education support: Most educational events have been also co-sponsored by schools, provincial ministries of education and professional societies.

Summary of Expenditures – PIMS 2000/01

Expense Category	<i>Budget</i>	<i>Expenses</i>	Balance
Site Offices	196270	192295	3975
Central Office Admin.	278000	300564	-22564
Scientific Personnel	221000	195674	25326
Special Events	65000	74747	-9747
Industrial Outreach (*)	447000	359503	87497
Educ. Programs	166900	139087	27813
Scientific Activities	351677	330609	21068
PIMS Post-doc fellows (**)	406000	364750	41250
Total Expenses	2,131,847	1,957,228	174,619

(*) Figures do not include industrial funds nor MITACS projects

(**) Figures do not include industrial postdocs nor matching funds

Source	<i>Income</i>	<i>Budget</i>	<i>Expenses</i>	<i>Carry-forward</i>
NSERC	713536	698500	637031	76505
ISTA	220812	251000	198670	22142
BC-NCE	129612	135000	129612	0
ASRA	219942	236400	219359	583
Universities	549357	534270	532194	17163
MITACS	229000	218500	199072	29928
Other	109584	58177	41290	68295
Total Expenses	2,171,843	2,131,847	1,957,228	214,615

Pacific Institute for the Mathematical Sciences is sponsored by:

The Natural Sciences and Engineering Research Council of Canada

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**Edited by N. Ghoussoub
and H. Jenkins.**

**Front cover photo
kindly provided by
Douglas Leighton**