2016 Resource Allocation Competition Awards

Researcher	Institution	Project title	Compute Allocation (CY)	Storage Allocation (TB)	GPU Allocation (gpu years)
Ahmad Afsahi	Queen's University	High-Performance Communication Runtime for Exascale Computing	295	1	0
Jahrul Alam	Memorial University of Newfoundland	Wavelet-based large eddy simulation (LES) of atmospheric turbulence	0	3	0
Susan Allen	University of British Columbia	Coupled Ocean Models: Salish Sea and Arctic Ocean	134	0	0
Ahmet T. Alpas	University of Windsor	Friction modelling of carbon surface from first principles simulation	35	0	0
Cristina Amon	University of Toronto	Nanoscale Thermal Transport in 2D Nanomaterials	653	39	0
Derek Apel	University of Alberta	Finite element analysis model for determination of in-situ and mining induced stresses as a function of two different mining methods at Diavik Mine	13	2	0
Antti Arppe	University of Alberta	21st Century tools for indigenous languages	0	3	0
Nasser Ashgriz	University of Toronto	Simulations of Coolant Flow in a 37-Element Fuel Channel (Second Year)	28	0	0
Noureddine Atalla	Université de Sherbrooke	Modélisation de la réponse vibroacoustique et aéroacoustique de structures complexes multimatériaux	80	5	0
Philip Austin	University of British Columbia	Large eddy simulations of cloud entrainment and detrainment	45	0	0
Philip Awadalla	Université de Montréal	Medical and Population Genomics	280	27	0
Paul Ayers	McMaster University	Tools for Modelling Molecular Structures and Reactivity	304	0	0
Tomas Babak	Queen's University	Characterizing regulatory drivers of cancer and major depressive disorder	36	10	0
Arif Babul	University of Victoria	Computing the Universe: Unified Modeling of the Evolution of Galaxies and Hot Diffuse X-ray Emitting Gas in Cluster Environments	672	100	0
Gary Bader	University of Toronto	Patient similarity networks for clinical predictors of relevance to mental illness	2	3	0
Sylvain Baillet	McGill University	The role of nested oscillations in shaping long-range coupling in the human brain.	110	0	0
Andre Dieter Bandrauk	Université de Sherbrooke	FAZST-Femto-Atto-Zepto-Second Science & Technology	5,086	100	0
David Barber	University of Manitoba	Nucleus for European Modelling of the Ocean (NEMO) and its use in the ArcticNet Integrated Regional Impact Study (IRIS) process	9	4	0
Luis Barreiro	Université de Montréal	Mapping eQTLs that affect susceptibility to bacterial infections	50	14	0
Peter Bartello	McGill University	Atmospheric and oceanic mixing by rotating stratified turbulence	144	0	0

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Luc Beaulieu	Université Laval	Advanced Dose Calculation Platform for Macro-, Micro-, and Nano-Therapeutics Applications	35	0	0
Mirza Faisal Beg	Simon Fraser University	Early Detection of Neurodegenerative Dementias using High Dimensional Morphometric Features	168	350	0
Pierre Bellec	Université de Montréal	Subtypes of human functional and structural brain connectivity in healthy and pathological aging	30	70	0
Yoshua Bengio	Université de Montréal	Deep Learning Algorithms	0	30	10
Jeffrey Bergthorson	McGill University	High Fidelity Simulations of Pollutants Formation in Turbulent Reacting Flows For Model Development	150	0	0
Louis Bernatchez	Université Laval	EPIC4 (Enhancing Production in Coho: Culture, Community, Catch)	30	28	0
François Bertrand	École Polytechnique	Modélisation des écoulements de fluides et de solides pour des procédés du génie chimique	305	0	0
Kirstin Bett	University of Saskatchewan	Lentil Genome Sequencing	0	40	0
Kirk Bevan	McGill University	Computational Design of Nanoelectronic Materials	108	2	0
J. Richard Bond	University of Toronto	Cosmic Microwave Background, Early Universe, and Large Cosmic Structures	1,041	35	0
Guillaume Bourque	McGill University	Large-scale processing and sharing of genomic and genetic data (2016)	915	900	0
Richard Bowles	University of Saskatchewan	Theory and Simulation of Soft Condensed Matter	58	9	0
Michael Bowling	University of Alberta	Sequential Decision-Making with Delayed Consequences	136	0	3
Thomas Brabec	University of Ottawa	Ab initio modelling of light-matter interaction	290	5	0
Felix Breden	Simon Fraser University	Interdisciplinary Research in the Mathematical and Computational Sciences (IRMACS)	0	25	0
Joshua Brinkerhoff	University of British Columbia	Direct Numerical Simulations of Laminar-to-Turbulent Transition in Natural-Gas Turbomachinery and Processing	0	15	0
Fiona Brinkman	Simon Fraser University	Public health and environmental monitoring genomics and metagenomics	53	80	0
Marc Brisson	Université Laval	Using mathematical modeling and health economics to evaluate and optimize infectious disease prevention strategies	407	0	0
Alex Brown	University of Alberta	Designing new biofluorophores and materials	102	0	0
Paul Brumer	University of Toronto	Electronic energy transfer in bi-chromophoric systems: Application of localized electronic operator to naphthalene-(CH2)n-anthracene series	862	47	0
Douglas Bryman	University of British Columbia	Rare Pion and Kaon decays	0	360	0

2016 Resource Allocation Competition Awards

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Kendal Bushe	University of British Columbia	Tools for the Numerical Simulation of Turbulent Combustion	77	0	0
Tucker Carrington	Queen's University	Numerically exact ro-vibrational spectrum of the water dimer + Tensor methods for computing vibrational spectra of large molecules	264	1	5
Mallar Chakravarty	Centre for Addiction & Mental Health	Imaging-genetics using neuroanatomical phenotypes for neuropsychiatric disorders	170	50	0
Hue Sun Chan	University of Toronto	Order, Intrinsic Disorder, and Switches in Protein Folding and Interactions	648	0	0
Paul Charbonneau	Université de Montréal	Simulation magnétohydrodynamique de la convection solaire	549	4	0
Zhangxing (John) Chen	University of Calgary	Reservoir Modelling and Simulation	312	0	0
Jeff Z. Y. Chen	University of Waterloo	Calculation of phase diagrams for wormlike polymer melts and liquid-crystals	85	0	0
Matthew Choptuik	University of British Columbia	Numerical Relativity	100	10	0
Paul Chow	University of Toronto	Interconnect Architectures for Field-Programmable Gate Arrays	27	6	0
Philippe Constant	Institut National de la Recherche Scientifique	Metagenomic and Metatranscriptomic Analysis of Soil Biogeochemical Processes Sustained by Interspecific Transfer of Molecular Hydrogen	0	10	0
Styliani Constas	University of Western Ontario	Computational development of high-throughput analysis methods for protein-drug interactions	35	1	0
Jacques Corbeil	Université Laval	Predictive computational phenotyping using high throughput mass spectrometry, genomics and machine learning approaches.	648	175	0
Patrick Cossette	Université de Montréal	La médecine personnalisée pour l'épilepsie	0	75	0
Michel Côté	Université de Montréal	Calculs de structure électronique pour l'étude de matériaux quantiques.	500	0	0
Hugh Couchman	McMaster University	MUGS2	305	0	0
Curran Crawford	University of Victoria	Wave energy device performance prediction	0	10	0
Melania Cristescu	McGill University	Ecological and environmental genomics to determine patterns of mutation, adaptation, speciation, and biodiversity distribution	30	6	0
Duane Cronin	University of Waterloo	Advanced Human Neck Models with Active Musculature for Enhanced Vehicle Safety in Side Impact and Rollover Scenarios	108	24	0
Quentin Cronk	University of British Columbia	PopCan: Large scale genomic research on poplar	0	35	0
Nazzareno D'Avanzo	Université de Montréal	Computational Studies of Ion Channels in Lipid Bilayers	0	10	0

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Alain Dagher	McGill University	Neuro-behavioral model of weight gain	30	0	0
Francis Dawson	University of Toronto	Capacitance and Charge Transport of Graphene-based Nanostructures	0	4	0
Mark Daymond	Queen's University	Irradiation induced damage structures in zirconium	72	0	0
Ramon de Elia	Université du Québec à Montréal	Ensembles polyvalents de projections climatiques régionales à haute résolution pour l'Amérique du Nord et le Québec pour l'étude des impacts locaux des changements climatiques	272	60	0
Anne de Vernal	Université du Québec à Montréal	Arctic and subarctic environments under “warm” climate conditions	38	10	0
Doug Degenstein	University of Saskatchewan	Atmospheric Species Retrievals For Climate Change Investigation Using Limb Scattered Sunlight Data Collected by the Canadian OSIRIS and NASA OMPS-LP Satellite Instruments	1,110	7	0
Claire Deschênes	Université Laval	Numerical and experimental investigations of low-head turbines hydrodynamic for generation of greener hydro-electricity	269	0	0
Maxime Descoteaux	Université de Sherbrooke	Improving dMRI processing on the Human Connectome Project datasets	92	0	0
Cecile Devaud	University of Waterloo	Numerical simulations of turbulent reacting flows	138	0	0
Gino DiLabio	University of British Columbia	New Density-Functional Theory Based Methods for the Simulation of Nanosystems	200	0	0
Ned Djilali	University of Victoria	Modeling of “PEM Fuel Cells” and “Sudden Hydrogen Leakage”	200	10	0
Eric Donovan	University of Calgary	Remote Sensing the Near Earth Space Environment	0	150	0
Arnaud Droit	Université Laval	Computational biology resources for early detection of breast cancer	104	36	0
Marie-Pierre Dubé	Université de Montréal	Pharmacogenomics Research	85	0	0
Guy Dumas	Université Laval	CFD for green energy production systems	132	32	0
Mathieu Dumberry	University of Alberta	Quasi-Geostrophic models of convection in planetary interiors	34	1	0
Seth Dworkin	Ryerson University	Parallel Simulation and Model Development of Pollutant Formation in Biofuel Combustion	2,800	1	0
Ann English	Concordia University	Modeling methionine-aromatic interactions in proteins	97	1	0
Carl Ernst	McGill University	INVESTICATE: Translational genomics approaches to treating rare neurodevelopmental disorders	30	21	0
Hossain Farid	Nova Scotia Agricultural College	Early immune response of mink to infection by the Aleutian mink disease virus	4	0	0

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Robert Fedosejevs	University of Alberta	Laser Fusion Energy – Fast Ignition and Shock Ignition	120	52	0
Ulrich Fekl	University of Toronto	Quantum Chemistry to Aid Design and Understanding of Functional Molecules	14	0	0
Alessandro Forte	Université du Québec à Montréal	Numerical Modelling of Thermal Convection in the Earth's Mantle	483	0	0
Leonard Foster	University of British Columbia	Sustaining and securing Canada's honey bees using 'omic tools	0	35	0
Andrew Frey	University of Winnipeg	Gravitational Collapse in AdS Spacetime, Perturbatively and Non-Perturbatively	31	2	0
Ian Frigaard	University of British Columbia	Non-Newtonian and multi-phase fluid flows in industry and nature	26	0	0
Ichiro Fujinaga	McGill University	Single Interface for Music Score Searching and Analysis	16	20	0
Thian Yew Gan	University of Alberta	Climate change impact on water levels of the Mackenzie River and climate change impact on design storms for the City of Edmonton – Phase III	0	40	0
James Gauld	University of Windsor	Multi-scale Computational Enzymology	192	0	0
Pierre Gauthier	Université du Québec à Montréal	Application of data assimilation to model validation	80	35	0
Dennis Dionysios Giannacopoulos	McGill University	A study of FGaBP parallel scaling on hybrid HPC	0	1	0
Darren Grant	University of Alberta	IceCube data analysis and IceCube-Gen2 detector developments	915	67	50
Robin Gras	University of Windsor	Analysis of a predator-prey evolving ecosystem simulation	82	72	0
Simon Gravel	McGill University	Computational population genetics	44	21	0
Celia Greenwood	McGill University	Development of statistical analysis methods for genetic and genomic data	38	0	0
Russell Greiner	University of Alberta	Computational Mass Spectrometry for Automated Metabolite Identification	85	0	0
Clinton Groth	University of Toronto	Accurate, Robust, and Scalable Computational Methods for Large-Scale Simulations of Multi-Scale Physically-Complex Flows	2,400	5	0
Elin Grundberg	McGill University	Integrative metabolic disease genomics and epigenomics in human populations	120	130	0
Hong Guo	McGill University	First principles investigation of emerging electronic materials and devices	1,949	0	0
David Guttman	University of Toronto	Comparative genomics, metagenomics, and metatranscriptomics	192	5	0
Bae-Yeun Ha	University of Waterloo	Modelling chromosome organization	0	1	0

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Wagdi Habashi	McGill University	Multi-physics Analysis and Design of Aerospace Systems	433	2	0
Steven Hallam	University of British Columbia	Global scale metabolic pathway reconstruction from environmental genomes	187	0	0
Ian Hamilton	Wilfrid Laurier University	Semiconductor Nanocrystals and Gold Nanostructures	92	0	0
Robert Hancock	University of British Columbia	Bioinformatics Strategies to Combat Inflammation	0	9	0
Thad Harroun	Brock University	Coarse-grained large-scale simulation of a lipopolysaccharide membrane	0	0	5
Pierre Harvey	Université de Sherbrooke	Ultrafast electron transfers and excitation energy migrations in bulk materials	91	0	0
Moritz Heimpel	University of Alberta	Modelling Planetary Fluid Flow and Magnetic Field Generation	748	0	0
Caren Helbing	University of Victoria	Informatics on Sentinels of the Environment (INFO-SENSE)	31	12	0
Falk Herwig	University of Victoria	Hydrodynamics in stars and the origin of the elements	478	160	0
Jean-Pierre Hickey	University of Waterloo	Direct Numerical Simulation of high-enthalpy wedge flow for hypersonic vehicles	70	10	0
Gil Holder	McGill University	South Pole Telescope Data Analysis and Simulations	100	0	0
Holger Hoos	University of British Columbia	Automated Design, Optimisation and Customisation of Performance-Critical Software	192	18	0
Scott Hopkins	University of Waterloo	Determining the Chemical and Physical Properties of Nanoclusters	102	0	0
Michael Houghton	University of Alberta	Design of Highly Specific and Effective Viral Polymerase Inhibitors by Screening for Off-Target Interactions with Human Polymerases	267	4	0
Yi Huang	McGill University	High performance computing and analysis for the atmospheric radiation research	58	150	0
Radu Ion Iftimie	Université de Montréal	Molecular mechanism of acid-base reactions in chemistry and biochemistry	458	0	0
Natalia Ivanova	University of Alberta	Strong stellar interactions	53	28	20
Artur Izmaylov	University of Toronto	Molecular reactivity and non-adiabatic dynamics at metallic interfaces	691	20	0
Nada Jabado	McGill University	Molecular diagnosis and identification of new drug targets for paediatric brain cancers	30	100	0
Pierre-Étienne Jacques	Université de Sherbrooke	Genomics and genetics data analysis	84	0	0
Sangyong Jeon	McGill University	Exploring the QCD phase space	1,107	200	0

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Craig Johansen	University of Calgary	High-Speed Compressible Flow and Low-Speed Aero-Energy	0	73	0
Erin Johnson	Dalhousie University	Density-Functional Study of Intermolecular Interactions: Applications to Solids and Surfaces	732	0	0
Apostolos Kantzas	University of Calgary	Modeling and simulation of the pore-level displacements in 3-D natural porous media patterns for the study of enhanced oil recovery	136	20	0
Raymond Kapral	University of Toronto	Synthetic motors and protein machines	420	0	40
Victoria Kaspi	McGill University	Large-Scale Searches for Radio Pulsars, RRATs and Fast Radio Bursts	966	35	0
Hae-Young Kee	University of Toronto	Discovery of New Quantum Materials	122	0	0
Rustam Khaliullin	McGill University	Unraveling microscopic origins of the enhanced hydrogen storage properties of magnesium nanostructures	343	1	0
Boualem Khouider	University of Victoria	Improving climate models with better parameterization of organized convection	49	10	0
George Kirczenow	Simon Fraser University	Physics of Nanostructures	153	5	0
Daniel Kirshbaum	McGill University	Large-eddy simulation of topographically forced convective clouds	30	3	0
Claudia L. Kleinman	McGill University	Computational approaches to elucidate molecular disease mechanisms	0	36	0
Mariusz Klobukowski	University of Alberta	Computational Modelling of Molecular Systems using Model Core Potential Method	122	6	0
Alexandra Komrakova	University of Alberta	A predictive numerical framework for emulsion flow	41	0	0
Ben Koop	University of Victoria	Coho and Arctic Charr Fish Genomes	97	10	0
Andriy Kovalenko	University of Alberta	Multiscale theory, modeling, and simulation for rational design in nanochemistry, nanomaterials, energy, and health applications	2,464	10	10
Carsten Krauss	University of Alberta	Processing of SNO+ first data	220	120	0
Peter Kusalik	University of Calgary	Molecular simulations of hydroxyl radical in aqueous phases, and nucleation and crystallization processes	475	10	0
Paul Kushner	University of Toronto	Analyzing Forced and Natural Climate Variability with Earth System Models: Atmospheric and Cryospheric Processes	659	102	0
Patrick Lagüe	Université Laval	Computational studies of the mechanism of action of different proteins playing key roles biological processes	203	0	0
Guillaume Lamoureux	Concordia University	Modeling of metals in proteins and of protein-protein recognition	100	13	3

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René Laprise	Université du Québec à Montréal	Development, improvement and validation of the high-resolution Canadian Regional Climate Model (CRCM5)	273	90	0
Faïçal Larachi	Université Laval	Towards Process Optimization through Diagnosis and Problem-solving in Flotation and Extractive Metallurgy	98	2	0
Julie LaRoche	Dalhousie University	Assessing the metabolic diversity of marine microbiomes through a targeted metagenomics/metatranscriptomic approach	102	8	0
Hugo Larochelle	Université de Sherbrooke	Réseaux de neurones profonds pour données structurées	190	0	20
Gregory Mark Lathrop	McGill University	Large-scale processing and sharing of genomic and genetic data	720	588	0
Ellsworth LeDrew	University of Waterloo	Canadian Cryospheric Information Network/Polar Data Catalogue Offsite Backup	0	40	0
Claude Legault	Université de Sherbrooke	Computational Organic Chemistry: Understanding the Origins of Reactivity and Selectivity	110	0	0
Luis Lehner	Perimeter Institute for Theoretical Physics	Multimessenger astronomy with compact binaries & strong gravity	526	17	0
Patrick Leighton	Université de Montréal	Spatial ecology of Arctic rabies under climate change	30	0	0
Jason Lerch	Hospital for Sick Children	Using imaging to study brain development in the mouse	86	8	0
Guillaume Lettre	Université de Montréal	Genetics of cardiovascular diseases in Canadians	0	70	0
Siu Ning Leung	York University	Modeling of Micro- and Nano-scaled Filler Networking in Polymer Material Systems	3	2	0
Randy Lewis	York University	Heavy hadrons, tetraquarks and dark matter in lattice quantum field theory	154	300	0
Laurent Lewis	Université de Montréal	Physical properties of advanced materials – from the atom to large-scale structures	153	0	0
Changxi Li	University of Alberta	Identifying functional SNPs to enhance genomic prediction accuracy for feed efficiency and carcass merit traits in beef cattle	61	0	0
Ping Liang	Brock University	Analysis of de novo mobile element insertions in normal humans and autism patients	0	10	0
Fue-Sang Lien	University of Waterloo	Development of a multiscale modeling framework for short-term wind power forecasting	180	45	0
Yajing Liu	McGill University	Earthquake rupture dynamics models in tectonic and glaciated environments	34	13	0
Michelle XiaoQing Liu	University of Manitoba	Identity-by-descent mapping for autism spectrum disorders	0	28	0
Justin MacCallum	University of Calgary	Physics-based approaches to integrative structural biology and protein design	81	10	33

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Yvan Maciel	Université Laval	Direct numerical simulation of a strongly decelerated turbulent boundary layer	40	11	0
Steve MacLean	Institut National de la Recherche Scientifique	Simulations of extreme laser light source interaction with matter	994	65	0
Jacek Majewski	McGill University	Computational genomics of human diseases and cancers	386	450	0
Richard Marchand	University of Alberta	Spacecraft-environment interaction	0	1	0
Philip Marsh	Wilfrid Laurier University	The Artic Snowcover: Sensitivity, change, and impact on terrestrial system, water resources, and communities	0	1	0
Hugo Martel	Université Laval	Galaxy Formation, Evolution, and Feedback	91	6	0
Randall Martin	Dalhousie University	Computational Resources to Interpret Satellite Observations of Atmospheric Composition for Air Quality and Climate Applications	504	665	0
Remo Masut	École Polytechnique	Ab initio study of piezoelectric alloys based on AlN and on ZnO	80	8	0
Christopher Matzner	University of Toronto	Star formation, molecular cloud evolution, and astrophysical explosions	0	4	0
Art McDonald	Queen's University	Analysis of SNO and DEAP-1	23	550	0
Kathryn McWilliams	University of Saskatchewan	SuperDARN International Data Distribution Facility	0	45	0
Michael Meaney	McGill University	Neuroepigenetics	0	15	0
Giuseppe Melacini	McMaster University	Molecular Dynamics Simulation of Biomolecular Complexes Controlling Eukaryotic cAMP-Signaling	156	0	0
Roger Melko	University of Waterloo	Simulations of Entanglement in Quantum Many-Body Systems	333	0	0
Brian Menounos	University of Northern British Columbia	HPC Request for Continued Support of Cryospheric Science	14	45	0
Timothy Merlis	McGill University	Atmospheric Circulations and Climate Change	30	8	0
Erika Merschrod	Memorial University of Newfoundland	Optical response of sensor films	34	0	0
Jacques Michaud	CHU Ste-Justine	Centre de génomique pédiatrique du CHU Sainte-Justine	30	19	0
Matthias Militzer	University of British Columbia	Quantum mechanical/molecular mechanical simulations of grain boundaries	54	0	0
R. J. Dwayne Miller	University of Toronto	Molecular Dynamics Simulation of Ablation by Desorption Impulsive Vibrational Excitation: Towards Fundamental Limits in Biodiagnostics	80	0	0
Alexander Moewes	University of Saskatchewan	Probing new materials with Density Functional calculations and synchrotron-based spectroscopy	180	1	0

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Seyed Moghadas	University of Winnipeg	Smart Strategies in Computational Epidemiology	1,306	10	0
Nicolas Moitessier	McGill University	Development of computational methods for drug discovery	68	0	0
Luc Mongeau	McGill University	Aero-Acoustics & Bio-Engineering Simulations Using Advanced Numerical Methods and High Performance Computing	140	0	20
Stéphane Moreau	Université de Sherbrooke	Direct noise predictions for transport applications	1,650	85	0
Ryan Morin	Simon Fraser University	Comprehensive genomic meta-analysis of B-cell non-Hodgkin lymphomas	0	40	0
Tarik Moroy	Université de Montréal	Hematopoiesis, immune cell differentiation, and cancer	30	35	0
Quaid Morris	University of Toronto	Improving cancer treatment by reconstructing the evolutionary history of tumours	880	10	0
Nicholas Mosey	Queen's University	Simulations of Molecules and Materials Under High Stresses	340	0	0
Normand Mousseau	Université de Montréal	Simulations de systèmes complexes : des matériaux aux protéines amyloïdes	624	0	0
Norman Murray	University of Toronto	Galaxy, Star, and Planet Formation	323	0	0
Paul Myers	University of Alberta	High Resolution Modelling of Northern Waters	229	25	0
Siva Nadarajah	McGill University	Unstructured High-Order Schemes for LES and Adjoint-Based Optimization of Multistage Turbomachinery	128	0	0
Andriy Nahachewsky	University of Alberta	Ukrainian Cultural Heritage Repository (UCHR)	0	43	0
Petr Navratil	TRIUMF	Ab initio calculations for light nuclei with applications to astrophysics	2,500	20	0
Corey Nislow	University of British Columbia	Precision Pharmacogemomics	0	200	0
Sergei Noskov	University of Calgary	Multi-scale models of solute transport in biological and artificial nanopores	5,001	46	20
Scott Ormiston	University of Manitoba	Computational Fluid Dynamics Modelling of Two-Phase Flow, Supercritcal Water Flow, and Turbulent Channel Flow	0	2	0
Jocelyn Ozga	University of Alberta	The role of plant hormones in the coordination of fruit development	4	40	0
Yuanming Pan	University of Saskatchewan	First-principles calculations of minerals and other Earth materials	138	4	0
John Parkinson	Hospital for Sick Children	Functional Interrogation of Microbiomes in Health and Disease	582	0	0
Tomi Pastinen	McGill University	High-throughput assessment of genetic and epigenetic population variation	400	500	0

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Gren Patey	University of British Columbia	Molecular Simulations of Liquids, Solutions, and Nucleation Processes	366	0	0
Tomas Paus	Baycrest Centre for Geriatric Care	Brain & Body Health	50	55	0
Paul Pavlidis	University of British Columbia	Michael Smith Laboratories archival data storage facilities	0	222	0
Laurence Pelletier	Mount Sinai Hospital	Quantitative Genomics, Proteomics, and Cell Biology	942	1,267	0
Joëlle Pelletier	Université de Montréal	Simulating the dynamics of engineered beta-lactamase enzymes: expanding the NMR-accessible timescale	136	4	0
Richard Peltier	University of Toronto	Atmospheric and Geophysical Fluid Dynamics	2,149	285	0
Ue-Li Pen	University of Toronto	Computational Astrophysics	1,297	1,205	0
Gilles Peslherbe	Concordia University	Applications of Quantum Chemistry and Molecular Dynamics Simulations to Materials, Solvation and Biophysics	262	5	15
Harald Pfeiffer	University of Toronto	Numerical simulations of compact object binaries: Understanding gravity and contributing to LIGO	5,001	30	0
Hervé Philippe	Université de Montréal	Phylogénomique et usage des codons chez les virus	2,684	5	0
David Pike	Memorial University of Newfoundland	Combinatorial Design Theory and Graph Theory	0	2	0
Ugo Piomelli	Queen's University	Numerical simulations of turbulent flows	261	120	0
Steven Plotkin	University of British Columbia	Molecular dynamics of protein misfolding: Applications to neurodegeneration and cancer	902	8	3
John Polanyi	University of Toronto	The Motions of Atoms and Molecules in Chemical Reaction	405	5	0
Régis Pomès	Hospital for Sick Children	Large-scale computational studies of biomolecular structure and function	7,233	528	5
Doina Precup	McGill University	Reinforcement Learning and Big Data	305	0	2
Ralph Pudritz	McMaster University	Simulating the formation of star clusters in galaxies	229	5	0
Russell Pysklywec	University of Toronto	Study of the tectonics of the continental mantle lithosphere from 3D computational geodynamics	1,200	3	0
Ioannis Ragoussis	McGill University	Single Cell Cancer Genomics	136	21	0
Satyapal Rathee	University of Alberta	Radiation Dose Calculation in inhomogenous media with applied magnetic field	29	0	0
Arvi Rauk	University of Calgary	Peptide-Peptide and Peptide-Metal interactions related to Alzheimer's disease	148	20	0
Reinhart Reithmeier	University of Toronto	Molecular Dynamics Simulations of Membrane Transport Proteins in Lipid Bilayers	280	15	0
Loren Rieseberg	University of British Columbia	Genome Assemblies of Compositae Crops and Weeds	97	10	0

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Alain Rochefort	École Polytechnique	Modélisation de systèmes moléculaires assemblés de grande taille	92	4	0
Erik Rosolowsky	University of Alberta	High-Resolution Calibrated Simulations of Star Formation	81	6	0
Stuart Rothstein	Brock University	A quantum Monte Carlo study of the charge carriers in conducting organic polymers	173	0	0
Guy Rouleau	Université de Montréal	High Throughput Sequencing	268	488	0
Christopher Rowley	Memorial University of Newfoundland	New Methods for Modeling Biophysical Chemistry	904	1	0
Oleg Rubel	McMaster University	Computer-aided design of optoelectronic materials	43	10	0
Mauricio Sacchi	University of Alberta	Seismic Data Processing, Reconstruction, Imaging and Inversion	46	2	0
Dennis Salahub	University of Calgary	Towards the multiscale modeling of (bio)catalytic systems	2,268	0	0
Edward Sargent	University of Toronto	Computational design of materials and device architectures for thin-film optoelectronic devices	630	1	0
Rémy Sauvé	Université de Montréal	Identification d'inhibiteurs allostériques du canal KCa3.1 par criblage virtuel	0	1	0
H. Georg Schreckenbach	University of Manitoba	Quantum Chemistry Applied to Diverse Energy and Materials Problems	100	0	0
Erwin Schurr	McGill University	Host genetics of mycobacterial disease	0	12	0
David Sénéchal	Université de Sherbrooke	Quantum cluster methods for strongly correlated electrons	80	0	0
Karthik Shankar	University of Alberta	Computational modeling for prediction of active layer nanomorphology and optical properties in soft matter-containing electronic composites	0	6	0
Alison Sills	McMaster University	Sizes of Globular Clusters in a Variety of Galactic Tidal Fields	35	2	0
Chandra Veer Singh	University of Toronto	Computational Discovery of Novel Catalytic Materials for Photoexcited CO2 Reduction	408	55	0
Daniel Sinnett	Université de Montréal	Genetic and Genomic Determinants of Childhood Leukemia	109	39	0
Jesko Sirker	University of Manitoba	Quantum Dynamics out of Equilibrium	275	0	0
David Sivak	Simon Fraser University	Statistical biophysics of molecular machines	39	0	0
Frances Skinner	University Health Network	Neuron and Network Modeling in Hippocampus and Cortex	162	6	0
Jun Song	McGill University	Predictive Defect Engineering at Nanoscale in Crystalline Materials	2,317	8	0

2016 Resource Allocation Competition Awards

Researcher	Institution	Project title	Compute Allocation (CY)	Storage Allocation (TB)	GPU Allocation (gpu years)
Erik Sorensen	McMaster University	Computational Quantum Condensed Matter	340	0	0
Chris Soteros	University of Saskatchewan	Lattice models of polymer entanglements and applications to DNA topology	27	20	0
Byron Southern	University of Manitoba	Simulation Studies of Advanced Magnetic Materials	138	5	0
Artur Sowa	University of Saskatchewan	Quantumness, Quantum Engineering and its Applications to Medical Imaging	16	1	0
Ingrid Stairs	University of British Columbia	Long-term Storage of Radio Pulsar and Transient Data	0	115	0
Nadja Steiner	University of Victoria	The effect of ecosystem complexity on marine ecosystem responses to future changes in the Arctic Ocean	27	0	0
David Steinman	University of Toronto	Prevalence and Importance of "Turbulent" Flows in Cerebral Aneurysms	174	45	0
Paul Stothard	University of Alberta	Using DNA sequencing to develop more effective tools for livestock breeding	6	78	0
Stanislav Stoyanov	University of Alberta	Computational Modeling and Simulation for Energy and Environment Applications	125	0	0
David Straub	McGill University	Energetics of ocean circulation: Near-inertial - geostrophic interactions	30	60	0
Edward Sudicky	University of Waterloo	High-Resolution 3D Analysis of the Impact of Climate Change on Surface Water and Groundwater Resources in the Athabasca River Basin and the Grand River Watershed	24	10	0
Laxmi Sushama	Université du Québec à Montréal	Study of land surface processes and land-atmosphere interactions in the high-latitude and Arctic regions using the Canadian Regional Climate Model	200	165	0
Duane Szafron	University of Alberta	Computer Poker Research 2014	255	21	0
Jerzy Szpunar	University of Saskatchewan	First Principles Simulation of Thermal Conductivity	58	0	0
Barbara Szpunar	University of Saskatchewan	Modeling Properties of Nuclear Materials	0	10	0
Tian Tang	University of Alberta	Atomistic Modeling of Molecular Binding, Aggregation and Assembly	115	1	0
Rowan Thomson	Carleton University	Advancing computational radiotherapy physics	74	0	0
Glen Tibbits	Simon Fraser University	Molecular dynamics simulation of cardiac troponin	276	0	0
Peter Tieleman	University of Calgary	Computer simulations of biological membranes	13,200	250	0
Jacquetta Trasler	McGill University	Normal and Abnormal Epigenomic Profiling in Germ Cells and Embryos	30	8	0
André-Marie Tremblay	Université de Sherbrooke	Strongly Correlated Superconductivity and Quantum Materials	1,808	23	0

2016 Resource Allocation Competition Awards

Researcher	Institution	Project title	Compute Allocation (CY)	Storage Allocation (TB)	GPU Allocation (gpu years)
Bruno Tremblay	McGill University	Vertical mixing and heat transport in the Arctic Ocean	34	7	0
John Tse	University of Saskatchewan	Structure, dynamics, and transport properties of minerals at high pressure	843	7	0
Stephen Tullis	McMaster University	Aerodynamics of wind turbines and blade flows	34	10	0
Martyn Unsworth	University of Alberta	3-D imaging of Earth structure using magnetotellurics	60	0	0
Elijah Van Houten	Université de Sherbrooke	Elastography: Imaging Elastic Properties in Soft Tissue	80	0	0
Lennaert van Veen	University of Ontario Institute of Technology	Transitions to turbulence in 3D Kolmogorov flow	14	0	0
Ludovic Van Waerbeke	University of British Columbia	Weak Lensing N-body Simulations for KiDS and RCS2 Surveys	0	75	0
Srikar Vengallatore	McGill University	Design of Resonant Nanomachines for Applications in the Classical and Quantum Regimes	117	0	0
Guifre Vidal	Perimeter Institute for Theoretical Physics	Tensor networks for emergent quantum many-body phenomena	880	10	0
Peter Vize	University of Calgary	Xenbase genomic systems	0	10	0
Franco Joseph Vizeacoumar	University of Saskatchewan	High throughput molecular imaging platform	0	15	0
Jackie Vogel	McGill University	Computational approaches for understanding the assembly and properties of molecular machines	0	18	0
Anthony Wachs	University of British Columbia	Numerical simulation of reactive particle-laden flows	275	0	0
James Wadsley	McMaster University	Molecular Cloud Formation in Galactic Discs	488	0	0
Bing-Chen Wang	University of Manitoba	High-Performance Numerical Simulation of Turbulent Flow and Dispersion	170	10	0
Noham Weinberg	Simon Fraser University	Theoretical studies of kinetic effects of high pressure	0	50	0
Stacey Wetmore	University of Lethbridge	DNA Damage: The Formation of Bulky DNA Adducts	0	36	0
Hans-Joachim Wieden	University of Lethbridge	Developing regulatory switches and identifying potential drug-target sites based on communication pathways between ribosome and its interacting translational GTPases	14	13	5
Carey Williamson	University of Calgary	Backup Storage for ELISA Networking Lab	0	25	0
Michael Wilson	Hospital for Sick Children	Multi-species analysis of transcription factor binding sites	0	4	0
Robert Wolkow	University of Alberta	Controlling Silicon Atomic States to Enable Ultra Low Power Electronics	97	0	0
Tom Woo	University of Ottawa	Virtual Screening of Advanced Materials for Clean Energy Applications	507	15	0

2016 Resource Allocation Competition Awards

Researcher	Institution	Project title	Compute Allocation (CY)	Storage Allocation (TB)	GPU Allocation (gpu years)
Xiaohua Wu	Royal Military College of Canada	Very-large-scale, data-intensive, direct numerical simulation of fundamental aeronautical fluid mechanics problems	480	150	0
Tomasz W. Wysokinski	University of Saskatchewan	The BioMedical Imaging and Therapy (BMIT) facility located at the Canadian Light Source - data depository	0	50	0
Li Xi	McMaster University	Dynamics of transport processes and complex materials via multiscale simulations	122	4	0
Sam Yeaman	University of Calgary	Local adaptation in heterogeneous environments: Evolutionary simulation and data analysis	175	1	0
Étienne Yergeau	Université de Montréal	Manipulating the microbiome of crops for increased productivity	85	38	0
Youngki Yoon	University of Waterloo	Carrier Transport in 2D Flexible Electronics	115	6	0
Toby Zeng	Carleton University	Computational Chemistry in Designing Molecules for High Performance Organic Optoelectronic Devices	35	22	0
Anton Zilman	University of Toronto	Natively unfolded proteins of the Nuclear Pore Complex	129	0	0
David Zingg	University of Toronto	High-Fidelity Numerical Optimization for Future Aircraft Design	2,800	16	0
Josef Zwanziger	Dalhousie University	Density functional theory studies of materials	96	0	0

Note: These are the allocations as of Jan 13, 2016.

Total RAC Awards	**118,502**	**14,748**	**269**

2016 Research Platforms and Portals Competition Awards

Researcher	Institution	Project title	Compute Allocation (CY)	Storage Allocation (TB)	GPU Allocation (gpu years)
Sylvain Baillet	McGill University	The Open Brain Imaging Databank	0	500	0
Denilson Barbosa	University of Alberta	Web Scale Information Extraction	56	15	0
Erin Bayne	University of Alberta	Multi--user Analysis, Automated Processing, and Storage of Bioacoustic Data	20	42	0
Guillaume Bourque	McGill University	Genetics and Genomics Analysis Platform (GenAP)	420	200	0
Felix Breden	Simon Fraser University	iReceptor - Integration of Large-Scale Immunogenetics Data	10	5	0
Fiona Brinkman	Simon Fraser University	(IRIDA) Integrated Rapid Infectious Disease Analysis - Simon Fraser University instance	50	25	0
Susan Brown	University of Guelph	Canadian Writing Research Collaboratory	60	360	0
Claire Brown	McGill University	Advanced BioImaging Facility (ABIF)	0	400	0
Arnaud Droit	Université Laval	R-Omix	16	2	0
Mohamed El-Darieby	University of Regina	Long-Tail Video Big Data for Intelligent Transportation Systems	50	125	0
Alan Evans	McGill University	Canadian Brain Imaging Research Network (CBRAIN)	880	420	0
Michael Frishkopf	University of Alberta	Ethnographic Multimedia Research Platform	1	29	0
Steven Hallam	University of British Columbia	EngCyc Environmental Pathway Genome Database Collection	613	45	0
Patrick Harrop	University of Manitoba	dbx: Design Build Exchange	8	2	0
Caren Helbing	University of Victoria	FROGZONE	181	248	0
Mary Ingraham	University of Alberta	folkwaysAlive!	5	16	0
Chris Jillings	Laurentian University	Analysis of Data from DEAP-3600 Direct Dark matter Search	216	395	0
Mark Leggott	University of Prince Edward Island	The Atlantic Research Data Repository (ARDR)	230	234	0
Elsayed Mahmoud	Sheridan College Institute of Technology and Advanced Learning	Food for Health Promotion	6	1	0
Randall Martin	Dalhousie University	A Data Portal for GEOS-Chem	51	100	0
Siobhán McElduff	University of British Columbia	Digital Salon Portal	10	0	0
Ian Milligan	University of Waterloo	Web Archives for Longitudinal Knowledge	20	36	0
Andriy Nahachewsky	University of Alberta	Ukrainian Folklife Archive	2	105	0
Tim Papakyriakou	University of Manitoba	Canadian Watershed Information Network (CanWIN)	52	110	0
Jason Pearson	University of Prince Edward Island	Retrievium: A Chemical Information and Storage Retrieval System	170	73	0

2016 Research Platforms and Portals Competition Awards

Researcher	Institution	Project title	Compute Allocation (CY)	Storage Allocation (TB)	GPU Allocation (gpu years)
Benoît Pirenne	University of Victoria	Ocean Networks Canada: A Science Support Facility	0	382	0
Christopher Pritchet	University of Victoria	Canadian Advanced Network for Astronomical Research	953	2,300	0
Geoffrey Rockwell	University of Alberta	Text Analysis Portal for Research (TAPoR)	8	2	0
Erik Rosolowsky	University of Alberta	The CyberSKA -- A Global Data Delivery Platform for Radio Astronomy	30	40	0
Jon Saklofske	Acadia University	NewRadial	4	0	0
Brent Scott	Alberta Children's Hospital Research Institute	ACHRI Galaxy Bioinformatics Portal	55	80	0
Raymond Siemens	University of Victoria	Digital Social Scholarship Incubator (DSSI) Research, 2016-2019 (composed of Iter Community (IC), Renaissance Knowledge Network (ReKN), and Electronic Literary Commons (ELC))	18	16	0
Stéfan Sinclair	McGill University	Voyant Tools: Shared Web-Based Text Analytics for Digital Humanities	6	100	0
Kris Sigurdson	University of British Columbia	Computing for the Canadian Hydrogen Intensity Mapping Experiment (CHIME)	899	960	0
Mike Smit	Dalhousie University	Ocean Data Portal	8	20	0
Randy Sobie	University of Victoria	Belle II Experiment at the KEK Laboratory	168	45	0
Reda Tafirout	TRIUMF	The ATLAS Experiment: Investigation of Fundamental Interactions and the Structure of Matter by the Study of Very High Energy proton-proton Collisions at the CERN Large Hadron Collider	3,649	4,312	0
Hirohisa Tanaka	University of British Columbia	Research Portal and Platform for the T2K Neutrino Oscillation Experiment	592	110	0
Andrew Tappenden	The King's University	Edmonton River Valley Atlas	4	11	0
David Wishart	University of Alberta	Genetic algorithm for biased molecular dynamics	244	12	0
Francis Zwiers	University of Victoria	PCIC Climate Explorer	0	145	0

Note: These are the allocations as of Jan 13, 2016.

Total RPP Awards **9,765** **11,877** **0**