

| Title | User | NCI Allocation | 1Q McLaren allocation | 2Q McLaren allocation | Total McLaren allocation |
|---|--------------------------------------|------------------|-----------------------|-----------------------|--------------------------|
| The University of Sydney | | | | | |
| Contaminant transport through defective composite liners in 3D | A/Prof Abbas El-Zein | 37,500 | 0 | 0 | 0 |
| The Subduction Reference Framework | Maria Seton | 76,500 | 17,500 | 17,500 | 35,000 |
| Dynamic Earth models and surface maps for South America | Nicolas Flament | 82,500 | 35,000 | 45,000 | 80,000 |
| Molecular Dynamics Simulations of Polymeric Systems | Ahmad Jabbarzadeh | 0 | 30,000 | 30,000 | 60,000 |
| Computer Simulations of Biomolecules | Serdar Kuyucak | 450,000 | 0 | 0 | 0 |
| Investigation of subduction dynamics using BEM-Earth | Dietmar Muller | 37,500 | 17,500 | 17,500 | 35,000 |
| Structural and Mechanistic Chemistry | Professor Leo Radom | 225,000 | 10,000 | 10,000 | 20,000 |
| Integrating deep-earth and surface processes for frontier-basin exploration | Dr Christian Heine | 0 | 17,500 | 32,500 | 50,000 |
| Learning the Complexity of Scientific Knowledge about Climate Change with Computer Modelling and Visualization Technologies | Michael Jacobson | 20,000 | 10,000 | 10,000 | 20,000 |
| Cosmological Probes of Dark Energy | Geraint Lewis | 112,500 | 0 | 0 | 0 |
| Dynamic mutual interactions between substrates and adsorbates | Soren Wohlthat | 10,000 | 0 | 0 | 0 |
| TBD? | Feng Xu | 0 | 30,000 | 30,000 | 60,000 |
| The ab <i>initio</i> investigation of high temperature alloys, and the FEM study of vacuum windows | Cenk Kocer | 0 | 20,000 | 20,000 | 40,000 |
| SUBTOTAL | | 1,051,500 | 187,500 | 212,500 | 400,000 |
| The University of New South Wales | | | | | |
| Modelling of Tides, Sediment and Nutrients Transport Dynamics | Xiao Hua Wang | 75,000 | 17,500 | 17,500 | 35,000 |
| The numerical study of wet granular flow in a rotating drum | Aibing Yu | 133,875 | 44,625 | 44,625 | 89,250 |
| Oceanic nepheloid layers and their role in coastal oceanography | Xiao Hua Wang | 2,000 | 5,000 | 5,000 | 10,000 |
| Numerical simulation of shear flow in annular shear cell | Prof. Aibing Yu | 0 | 27,500 | 27,500 | 55,000 |
| Modelling multiphase flow in cyclones | Shibo Kuang (Aibing Yu) | 56,250 | 0 | 0 | 0 |
| Numerical study of flow properties of wet granular material in rotating drum | Aibing Yu | 0 | 3,000 | 3,000 | 6,000 |
| 3D simulation of Blast Furnace | Aibing Yu | 0 | 15,000 | 15,000 | 30,000 |
| Dense medium cyclones in coal preparation | Jiang Chen (Aibing Yu) | 0 | 32,500 | 32,500 | 65,000 |
| Novel Atomic Level Investigations of High Temperature Surface Thermodynamics of Molten Steel | Dr. Rita Khanna | 37,500 | 0 | 0 | 0 |
| Mathematical Modelling of Human Papillomavirus Transmission and Vaccination | David Regan | 20,000 | 0 | 0 | 0 |
| g89 | Zongyan Zhou | 180,000 | 0 | 0 | 0 |
| Investigating land – atmosphere Interactions in the Murray-Darling Basin using a Regional Climate Model | Jason Evans | 56,250 | 0 | 0 | 0 |
| Modelling of Titanium Compound Formation in Blast Furnace Hearth | Keisuke Matthew Komiyama (Aibing Yu) | 0 | 17,500 | 17,500 | 35,000 |
| Modelling the sediment dynamics in Darwin Harbour, Northern Territory | Xiaohua Wang | 6,000 | 3,000 | 3,000 | 6,000 |
| An innovative geothermal reservoir development technology can help produce vast amount of green energy | Abdul Raoof SHAIK | 0 | 16,000 | 16,000 | 32,000 |
| An Operational Circulation Forecast System for Jervis Bay, NSW | Xiao Hua Wang | 200 | 17,500 | 17,500 | 35,000 |
| Processing of nanoparticles | Prof. Aibing Yu | 0 | 5,000 | 5,000 | 10,000 |
| Particle scale modelling of dense medium cyclones in coal preparation | Aibing Yu and Andrew Vince | 0 | 17,500 | 17,500 | 35,000 |
| DEM simulation on flow of cohesive particles | Aibing Yu | 0 | 17,500 | 17,500 | 35,000 |
| Discrete simulation of powder dispersion in pharmaceutical aerosol inhalers | Runyu Yang | 0 | 2,000 | 2,000 | 4,000 |
| DFT and ab initio studies of inorganic and organometallic complexes | Graham Ball | 45,000 | 0 | 0 | 0 |
| particle scale modelling and analysis of the multiphase flows in coal preparation (screening and spraying stage) | Amir Hossein Esfandiary (Aibing Yu) | 0 | 27,000 | 27,000 | 54,000 |
| Direct Numerical Simulation of Turbulent Combustion | Evatt Hawkes | 300,000 | 25,000 | 25,000 | 50,000 |
| Reactive flow in porous media | Christoph Arns | 60,000 | 0 | 0 | 0 |
| Simulation of multiphase flow in raceway of blast furnace | Tomo Shiozawa (Aibing Yu) | 0 | 20,000 | 20,000 | 40,000 |
| The improvement of blast furnace hearth drainage efficiency | Marat Chen (Aibing Yu) | 0 | 20,000 | 40,000 | 60,000 |
| Numerical Simulation of Gas-Solids Flow and Heat Transfer of Binary Particle Mixture in Three Dimensional Circulating Fluidized | Aibing Yu | 37,500 | 17,500 | 17,500 | 35,000 |
| Analysis of MOS based Si Quantum dots | Chris Escott | 37,500 | 0 | 0 | 0 |
| Nextgen sequencing | Marc Wilkins | 5,000 | 17,500 | 17,500 | 35,000 |
| CFDMECH | Tracie Barber | 225,000 | 17,500 | 17,500 | 35,000 |
| Subtotal | | 1,277,075 | 385,625 | 405,625 | 791,250 |
| The University of Newcastle | | | | | |
| Catalytic Mechanism of Deacon Reaction (Extension) | Bogdan Dlugogorski | 30,000 | 15,000 | 15,000 | 30,000 |
| Vortex shedding behind a magnetic obstacle | Dr. Paolo Burattini | 0 | 5,000 | 5,000 | 10,000 |
| SUBTOTAL | | 30,000 | 20,000 | 20,000 | 40,000 |
| The University of Technology, Sydney | | | | | |
| Plasmodium falciparum neutral aminopeptidases: structure-function analysis for the discovery of anti-malarial drugs. | Peter Jones | 60,000 | 20,000 | 20,000 | 40,000 |
| Simulation and Modelling of Nanostructures - optical properties | A/Prof Mike Ford | 40,000 | 25,000 | 25,000 | 50,000 |
| Modelling of Nanostructured Photonic Devices | Adel Rahmani | 50,000 | 2,000 | 5,000 | 7,000 |
| SUBTOTAL | | 150,000 | 47,000 | 50,000 | 97,000 |
| Macquarie University | | | | | |
| Planet-wide overturns | Craig O'Neill | 46,080 | 17,280 | 11,520 | 28,800 |
| SUBTOTAL | | 46,080 | 17,280 | 11,520 | 28,800 |
| University of Wollongong | | | | | |
| The Dynamic Conformational Ensembles in Protein-DNA Recognitions | Haibo Yu | 0 | 80,000 | 90,400 | 170,400 |
| SUBTOTAL | | 0 | 80,000 | 90,400 | 170,400 |
| University of Western Sydney | | | | | |
| Development of antioxidant agents from natural products | Ameha Seyoum Woldu | 0 | 25,000 | 25,000 | 50,000 |
| SUBTOTAL | | 0 | 25,000 | 25,000 | 50,000 |
| Southern Cross University | | | | | |
| Reacto-diffusive processes controlling iron uptake by phytoplankton cells | Andrew Rose | 0 | 500 | 500 | 1,000 |
| SUBTOTAL | | 0 | 500 | 500 | 1,000 |
| Intersect Special Purposes | | | | | |
| Grid trials and HPC training | Joachim Mai | 0 | 5,000 | 5,000 | 10,000 |
| SUBTOTAL | | 0 | 5,000 | 5,000 | 10,000 |

