

Title	User	APR Q NCI allocation	JUL Q NCI allocation	APR Q McLaren allocation	JUL Q McLaren allocation	Total McLaren allocation
<b>The University of Sydney</b>						
Molecular Dynamics Simulations of Polymeric Systems	Ahmad Jabbarzadeh		0	25,000	25,000	50,000
Dark Energy and Cosmology	Geraint Lewis	120,000	120,000	10,000	10,000	20,000
Structural and Mechanistic Chemistry	Leo Radom	90,000	90,000	10,000	10,000	20,000
Orogen-Parallel flow During Continental Convergence	Patrice Rey/Dieter Muller	10,000	10,000	17,500	17,500	35,000
Large-scale optimisation	Manfred Lenzen		0	17,500	17,500	35,000
Gene expression and the evolution of live-bearing	Matthew Brandley		0	17,500	0	17,500
Charting the evolution of reassorted strains of the influenza type A virus with proteotyping	Aaron Lun		0	5,000	0	5,000
Modeling of contamination through compacted clay liners	Abbas El-Zein	10,000	10,000	0	0	0
Exploring structure–property correlations in advanced materials	Simon Ringer	66,000	66,000	0	0	0
Computer Simulations of Biomolecules	Serdar Kuyucak	150,000	150,000	0	0	0
Mixed strategy geodynamic modelling: Integrating BEMEarth with Terra	Leonardo Quevedo		0	10,000	10,000	20,000
Dynamic Earth models and surface maps for South America	Nicolas Flament	5,000	5,000	5,000	5,000	10,000
Finite element analysis of vacuum windows	Cenk Kocer		0	17,500	17,500	35,000
Structural and functional simulations of protein drug targets.	Bret W. Church		0	25,000	25,000	50,000
Advanced analysis of composite structures	Gianluca Ranzi	10,000	10,000	0	0	0
Analysis of next gen sequencing data to understand evolution	Emily Wong		0	10,000	10,000	20,000
<b>SUBTOTAL</b>		<b>461,000</b>	<b>461,000</b>	<b>170,000</b>	<b>147,500</b>	<b>317,500</b>
<b>The University of New South Wales</b>						
HPC Support for High-Throughput DNA Sequencing	Marc Wilkins	5,000	5,000	5,000	5,000	10,000
An innovative geothermal reservoir development technology can help produce vast amount of green energy	Abdul Ravoof Shaik		0	20,000	17,500	37,500
Modelling of Tides, Sediment and Nutrients Transport Dynamics	Xiao Hua Wang	10,000	10,000	17,500	17,500	35,000
Gene Set Enrichment Analysis with Concepts	Guy Tsafnat		0	12,000	17,500	29,500
Simulation of multiphase flow in raceway of blast furnace	Tomo Shiozawa (Aibing Yu)		0	17,500	17,500	35,000
Modelling the Sediment Dynamics in Darwin Harbour, Northern Territory	Hua Wang	3,500	3,500	2,500	2,500	5,000
Processing of nanoparticles	Aibing Yu (Siyuan Yang)		0	15,000	15,000	30,000
Modelling of Multiphase Flow in the Blast Furnace	Aibing Yu	33,750	33,750	0	0	0
Modelling the Formation of Titanium Protection Layer in Blast Furnace	Keisuke "Matthew" Komiyama		0	17,500	17,500	35,000
Novel Atomic Level Investigations of High Temperature Surface Thermodynamics of Molten Steel	Rita Khanna	12,000	12,000	0	0	0
Multi scale modelling and analysis of multiphase flow in coal preparation: screening process	Amir Hossein Esfandiary		0	68,500	68,500	137,000
Oceanic nepheloid layers and their role in coastal oceanography	Xiao Hua Wang	12,000	12,000	20,000	20,000	40,000
Modelling multiphase flow in cyclones	Shibo Kuang	16,800	16,800	0	0	0
CFD-DEM Study of Pneumatic Conveying	Ke Li	10,000	10,000	0	0	0
NSW regional climate simulations for climate change impacts studies	Jason Evans	18,000	18,000	0	0	0
Numerical study of flow of wet particles in a rotating drum	Runyu Yang		0	15,000	15,000	30,000
Numerical simulation of shear flow in annular shear cell	Aibing Yu		0	17,500	17,500	35,000

Direct Numerical Simulation of Turbulent Combustion	Evatt Hawkes	180,000	180,000	25,000	25,000	50,000
Model studies of the flow and thermal behaviour of non-spherical particles in fluid bed reactors	Zongyan Zhou	24,000	24,000	0	0	0
CFDMECH	Tracie Barber	90,000	90,000	37,500	37,500	75,000
DFT and ab initio studies of inorganic and organometallic complexes	Graham Ball	13,500	13,500	0	0	0
An Operational Circulation and ecology forecast... Jervis Bay	Xiao Hua Wang (Donghui)		0	10,800	10,800	21,600
Use of GPU acceleration in agents based models via the EcoLab platform	Russell Standish	1,000	1,000	0	0	0
Lattice Models in Condensed Matter Physics and Lattice Gauge Theory	Robert Bursill	6,000	6,000	0	0	0
Reactive flow in porous media	Christoph Arns	12,000	12,000	0	0	0
<b>SUBTOTAL</b>		<b>447,550</b>	<b>447,550</b>	<b>301,300</b>	<b>304,300</b>	<b>605,600</b>
<b>The University of Newcastle</b>						
Catalytic Mechanism of Deacon Reaction	Bogdan Dlugogorski	25,000	25,000	15,000	15,000	30,000
Structural and functional simulations of protein drug targets.	Marian Radny	80,000	80,000	0	0	0
<b>SUBTOTAL</b>		<b>105,000</b>	<b>105,000</b>	<b>15,000</b>	<b>15,000</b>	<b>30,000</b>
<b>The University of Technology, Sydney</b>						
Multiscale Modelling of Photonic Devices	Adel Rahmani	90,000	90,000	100,000	100,000	200,000
Elucidation of the Collagenolytic Mechanism of Cathepsin Proteases.	Peter Jones	30,000	30,000	20,000	20,000	40,000
Learning Compact Representations for Human Action Recognition	Jun Li	1,500	1,500	0	0	0
Simulation and Modelling of Nanostructures	Mike Ford	22,500	22,500	25,000	25,000	50,000
<b>SUBTOTAL</b>		<b>144,000</b>	<b>144,000</b>	<b>145,000</b>	<b>145,000</b>	<b>290,000</b>
<b>Macquarie University</b>						
Explores the interaction of tectonics and mantle dynamics in 3D global models of mantle convection.	Craig O'Neill	18,720	18,720	18,720	18,720	37,440
Computational models in computational linguistics	Mark Johnson	10,000	10,000	10,000	10,000	20,000
Robust estimation of parameters of stable distributions with applications in Finance	Andrzej Kozek	4,000	4,000	4,000	4,000	8,000
Common envelope interaction between stars and planets	Orsola De Marco	20,000	20,000	0	0	0
<b>SUBTOTAL</b>		<b>52,720</b>	<b>52,720</b>	<b>32,720</b>	<b>32,720</b>	<b>65,440</b>
<b>University of Wollongong</b>						
The Dynamic Conformational Ensembles in Protein-DNA Recognitions	Haibo Yu	50,000	50,000	40,000	50,000	90,000
<b>SUBTOTAL</b>		<b>50,000</b>	<b>50,000</b>	<b>40,000</b>	<b>50,000</b>	<b>90,000</b>
<b>University of Western Sydney</b>						
Development of antioxidant agents from natural products	Ameha Woldu	5,000	5,000	25,000	25,000	50,000
Experimental and numerical investigation of granular flow in hoppers	Haiping Zhu & M Rahman		0	10,000	10,000	20,000
<b>SUBTOTAL</b>		<b>5,000</b>	<b>5,000</b>	<b>35,000</b>	<b>35,000</b>	<b>70,000</b>
<b>Southern Cross University</b>						
<b>SUBTOTAL</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>The University of New England</b>						
<b>SUBTOTAL</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>SUBTOTAL</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Intersect Special Purposes</b>						
HPC Training	Joachim Mai		0	10,000	10,000	20,000
Grid Trials	Joachim Mai		0	10,000	10,000	20,000
	Joachim Mai	100	100	10,000	10,000	20,000
<b>SUBTOTAL</b>		<b>100</b>	<b>100</b>	<b>30,000</b>	<b>30,000</b>	<b>60,000</b>
<b>SUM</b>		<b>1,265,370</b>	<b>1,265,370</b>	<b>769,020</b>	<b>759,520</b>	<b>1,528,540</b>

**Capacity factors**

1 Service Unit (SU)	= 1 CPU X 1 hour
Capacity of NCI	2,187,854
Capacity of McLaren	1,051,200
Total Allocatable Disk Capacity	13TB

**Allocation Parameters**

<b>NCI</b>	
Small Allocation threshold	20,000
General pro-rata factor (g factor)	0.6
<b>McLaren</b>	
1Q Small Allocation threshold	17,500
1Q General pro-rata factor (g factor)	0.5
2Q Small Allocation threshold	17,500
2Q General pro-rata factor (g factor)	0.5