Adapter Allocation Scheme Recipients – Q4 2022

The NCI Adapter Allocation Scheme is a merit-based scheme to allocate supercomputing, cloud and data storage resources to meritorious researchers around Australia. The Scheme, running quarterly, provides flexible access to relatively small allocations to support new and varied workloads across the scientific disciplines.

This table outlines the successful Adapter Scheme recipients for allocations in Q4 2022. The allocated resources are measured in thousands of Service Units (KSU). One KSU on the Gadi supercomputer is equivalent to 500 core hours, 1 KSU on the Nirin Cloud is equivalent to occupancy of 0.36 virtual cores for one quarter and 1 KSU of storage is equivalent to 0.16 Terabytes of storage for one quarter.

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Kathryn Baragwanath, Australian Catholic University	Can Protected Areas and Indigenous Lands Mitigate Electoral Deforestation Cycles?	225	0	25
Vladimir Puzyrev, Curtin University	Automating mineral exploration tasks with convolutional neural networks	102	0	6
Jorg Schluter, Deakin University, School of Engineering	Deep Learning for the Modelling of Hydrogen Flames	200	0	0
David Wilson, La Trobe University	Reliable and comprehensive electron-affinity and ionization-energy datasets	250	0	0
Daniel Lester, RMIT University	Validation of Direct Numerical Simulation of Turbulent Non-Newtonian Flow	250	0	0
Zongyou Yin, The Australian National University	DFT and FDTD calculations of high-performance photocatalysts for ambient selective redox reactions	250	0	0
Marco Ernst, The Australian National University	Performance Evaluation of Bifacial Modules on Australian Rooftops	250	0	0
Eric Alan Stone, The Australian National University	Guiding Principles and Guardrails for Smallish Genetic Association Studies	200	0	30
Thang Bui, The Australian National University	An evaluation of model evidence for deep learning models	250	0	0

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Laura AB Wilson, The Australian National University	Computational fluid flow and aeroacoustics simulation of air and sound movement through nasal chambers of bats.	30	0	2
Dr Ben Quah, The Australian National University and Canberra Hospital	Establishing Radiomic Analysis in Medical Images for Disease Prediction	75	0	25
Xing Zhi, The University of Melbourne	Computational engineering of liquid metal-based catalysts for CO2 conversion applications	250	0	0
James Bailey, The University of Melbourne	Using machine learning to identify critical structures during laparoscopic cholecystectomy	20	0	10
Stephan Chalup, The University of Newcastle	Computational Topological Analysis of Complex 3D Data Structures Using Incremental Learning	175	0	25
Joshua J Brown, The University of Newcastle	High-Throughput Quantum Chemical Screening of Stable 1D van der Waals Heteronanotubes based on Carbon & Boron Nitride Nanotube Templates	248	0	2
Alister Page, The University of Newcastle	High Throughput Quantum Electrostatic Screening in Bulk Electrolytes	225	0	0
Chengzhong Yu, The University of Queensland	Understanding of the charge transfer in the aluminium-ion batteries for stable and efficient cycling	148	0	2
Martin Stroet, The University of Queensland	Improved Energies for Machine Learning of Protomeric Stability	250	0	0
Suresh K. Bhatia, The University of Queensland	Impact of Water Sorption on Structure and Separation Performance of Polymeric Membranes	245	0	12.5

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Chengwang Lei, The University of Sydney	Large eddy simulation of flow past circular cylinders covered with grooves and riblets	250	0	0
Thorsten Tepper Garcia, The University of Sydney	The dynamical equilibrium of primeval stellar discs at high redshift	240	0	0
Kapil Chauhan, The University of Sydney	Direct Numerical Simulations of Natural Convection in Nearshore Regions	250	0	0
Chang Xu, The University of Sydney	Neural Architecture Search for Adversarial Robustness	250	0	0
James Burchfield, The University of Sydney	Investigating a novel phosphorylation site on Akt2 through the use of Molecular Dynamics and TIRF Microscopy.	250	0	0
Steven Armfield, The University of Sydney	Heat Transfer in High Rayleigh Number Natural Convection Boundary Layers	200	0	0
Matthew Cleary, The University of Sydney	Implicit Large Eddy Simulation of reacting transitional flows induced by Richtmyer-Meshkov Instability	250	0	0
Jaime Gongora, The University of Sydney	Genome-wide SNP and population genetics of platypuses and oryxes	70	0	30
Luke Bennetts, University of Adelaide	High resolution simulations of winter Antarctic marginal ice zone dynamics during storms using the CICE6 sea ice model	198	0	52
Jodie Yuwono, University of Adelaide	Rational design of electrolyte/electrode chemistry for high-performance Zn-ion batteries	240	0	0
Charitha de Silva, University of New South Wales	Analysis of highly resolved turbulent flow and aeroacoustic data	250	0	0

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Con Doolan, University of New South Wales	Aeroacoustic resonance in supersonic cylinder wakes	250	0	0
Adam Trevitt, University of Wollongong	Gatekeeper complexes in aromatic oxidation chemistry	120	0	0
Kathryn Baragwanath, Australian Catholic University	Can Protected Areas and Indigenous Lands Mitigate Electoral Deforestation Cycles?	225	0	25
Vladimir Puzyrev, Curtin University	Automating mineral exploration tasks with convolutional neural networks	102	0	6
Jorg Schluter, Deakin University, School of Engineering	Deep Learning for the Modelling of Hydrogen Flames	200	0	0
David Wilson, La Trobe University	Reliable and comprehensive electron-affinity and ionization-energy datasets	250	0	0
Daniel Lester, RMIT University	Validation of Direct Numerical Simulation of Turbulent Non-Newtonian Flow	250	0	0
Zongyou Yin, The Australian National University	DFT and FDTD calculations of high-performance photocatalysts for ambient selective redox reactions	250	0	0
Marco Ernst, The Australian National University	Performance Evaluation of Bifacial Modules on Australian Rooftops	250	0	0