Adapter Allocation Scheme Recipients – Q2 2023

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.

Successful Adapter Scheme recipients for allocations in Q2 2023 are listed below. 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)
Abolfazl Abdollahi, The Australian National University	Improving remote sensing of fuel data on a national scale	50	25	25
Ankit Ankit, The University of New South Wales	Development of an octree pattern-based geometric multigrid solver for large-scale seismic analysis of engineering structures.	200	0	0
Attila Horvath, The Australian National University	Probing the role of non-coding RNAs in 3D genome organisation	250	0	0
Ben Hui, The Kirby Institute	Modelling the impact of viability testing on reducing unnecessary antibiotic use in Neisseria gonorrhoeae treatment among MSM and general population in Australia.	250	0	0
Chang Xu, The University of Sydney	Normalization Layers Aggregation for Adversarial Robustness	250	0	0
Daniel Lester, RMIT University	Direct Numerical Simulation of Thixotropic Non-Newtonian Flow in Laminar, Transition and Turbulent Regimes	250	0	0
Daochang Liu, The University of Sydney	Image Generation for the Colour Vision Impaired	187	0	38

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David J. Adams, The University of Wollongong	Restoring Symmetry: Probing the GABAB Receptor Activation Mechanism of Analgesic Conopeptide Vc1.1	240	0	3
Dr Belinda Wright, The University of Sydney	Investigating the role of host genetics in chlamydial disease and vaccination in koalas.	100	0	25
Dr Dmitrii Rakov, The University of Queensland	Proton dynamics and catalytic current in Al-ion containing soft matter	218	0	2
Hao Xue, The University of New South Wales	Natural Language Generation-based Time Series Forecasting	220	0	0
Heather Mary Aitken, The University of Queensland	Biophysical properties of multidrug resistant bacterial membranes	250	0	0
Jennifer Boer, RMIT University	Vaccine Immunomodulation throughout the aging lifespan	100	0	18
Li Wang, The University of New South Wales	Numerical simulation of unmanned aerial vehicles in rarefied gas flow	250	0	0
Li Wei, The University of Sydney	Understanding the pH-field effects on electrocatalysts for ammonium synthesis	200	0	0
Lu Li, The University of Western Australia	3D geophysical investigation of Antarctic lithosphere	240	0	10

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Mahdi Sedighkia, The Australian National University	Designing nature-based solutions for flood mitigation in Noosa river basin, QLD using hydrodynamic modelling approach	180	0	0
Matthew John Cleary, The University of Sydney	Implicit Large Eddy Simulation of a transonic reacting transitional flow induced by Kelvin-Helmholtz Instability	250	0	0
Md Zakir Hossain, Curtin University	Deep Learning for Cancer Prognostication	250	0	0
Min Hong, The University of Queensland	Computationally driven high-performance thermoelectric materials and devices	200	0	0
Ming Zhao, Western Sydney University	Developing a three-dimensional numerical model for wave-energy harvesting devices	250	0	0
Mingchao Wang, The University of Queensland	Computational Investigation on the Electro-Chemo-Mechanical Behaviour of Alloying Anodes	244.2	0	0
Minh Bui, The Australian National University	A machine learning method for phylogenetic inference	160	0	0
Pablo Acera Mateos, Children's Cancer Institute	In-silico screening of drug-induced mRNA instability for cancer therapeutics	80	0	20
Pan Hu, Western Sydney University	Evaluating extraction force of offshore jack-up foundations	250	0	0

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Quang Kim Loi, The University of Queensland	A nonequilibrium approach to calculate interfacial transport of trace components across the liquid-liquid interface	150	0	0
Ravi Chandra Dutta, The University of Queensland	MOF nanoparticles as drug carriers: A molecular dynamics investigation.	248.76	0	0
Ryosuke Hirai, Monash University	Systematic study of stellar collisions	208	0	33
Sherif Abdulkader Tawifk Abbas, Deakin University	Energy Materials for a Circular Economy: Modelling Disorder in Spent Batteries	250	0	0
Shreya Ghosh, Curtin University	Multimodal Computational Modelling of Human-Human Interaction	200	0	50
Shuang Song, The University of New South Wales	High-resolution modelling of the migration of fines in suspension flow through membrane for wastewater treatment	160	0	45
Sinan Özaydin, The University of Sydney	Understanding the mineralisation pathways in Proterozoic Basins in Northern Australia.	220	0	30
Stephen Gregory Dale, Griffith University	2. Solid State Delocalization Error Bracketing in Density Functional Theory to Enable Reliable Predictions	250	0	0
Suresh Kumar Bhatia, The University of Queensland	Fluid transport in hierarchically structured zeolitic nanomaterials	230	0	0

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Tanveer Hussain, The University of New England	Designing Non-precious Functional Materials for Efficient Gas-sensing Applications	250	0	0
Thor Tepper-Garcia, The University of Sydney	The formation of galactic bars in gas-rich, turbulent galaxies	200	0	0
Wei Zong, The University of Wollongong	Defending against Unrestricted Adversarial Examples in Deep Learning	230	0	20
Xin-Yi Chua, The University of New South Wales	Surveying the evolution in microbial functional profile of normal and adverse pregnancies	95	0	125
Yongsop Hwang, The University of South Australia	Topologically protected lasers emitted with desired photon spins	50	0	0
Yuting Zhuo, The University of New South Wales	Multiphysics modelling of the hydrogen storage system and process optimisation	160	0	50
Zhongyan Zhang, University of Wollongong	Boosting Visual Representations with Spatial Context Information for Image Retrieval	200	40	10
Zoe Gillett, The University of New South Wales	The role of La Niña events for drought-breaking rainfall in Australia	250	0	0
Zongyou Yin, The Australian National University	High-throughput DFT screening of dual single atom on metal oxide monolayer for photocatalytic CO_2 reduction to C2 product	250	0	0