Adapter Allocation Scheme Recipients – Q3 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 Q3 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)
Ravi Jagadeeshan, Monash University	Modelling the Subdiffusive Motion of Bacteriophages within Mucus	250	0	0
Mingming Gong, University of Melbourne	Unsupervised UAV Depth Estimation based on Deep Graphical Models	120	0	30
Daniel Duke, Monash University	Variable cosolvent models for metered dose inhaler simulation	120	0	1.6
Tiffany Walsh, Deakin University	Nanoscale Biosensing Devices: Insights into Sensing Mechanisms from Simulation	245	0	5
Eirini Goudeli, University of Melbourne	Quantifying the toxicity of engineered nanoparticles	248.4	0	1.5
Vivienne Guan, University of Wollongong	Toward personalised nutrition: developing an image-based dietary tracking tool using computer vision and natural language processing	250	0	0
Suresh K. Bhatia, University of Queensland	Impact of Industrial Gas Impurities on Separation Performance of Polymeric Membranes	250	0	0
Paul Rymer, University of Western Sydney	Phylogenomic signatures of adaptation in eastern woodland Box/Ironbark (section Adnataria) Eucalypts	125	0	4
Raj Das, RMIT University	Dynamics by Design: Exploiting the emergent mechanics of evolved irregular and multiscale mechanical metamaterials	240	0	10
Cedric Simenel, The Australian National University	Microscopic studies of nuclear dynamics	210	0	37.5
Jason Dutton, LaTrobe University	Techniques to introduce halogen atoms	250	0	0

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Matthew Cleary, University of Sydney	Direct Numerical Simulations of fuel/air mixing and combustion during the transition to turbulence	250	0	0
Brian Smith, LaTrobe University	Computational Design of 310-helical and π-helical proteins	230	0	20
Daniel Price, Monash University	Solving the 86-year-old mystery of FU Orionis	250	0	0
Frederico Maggi, University of Sydney	High Resolution mapping of agricultural inputs	200	0	0
Chang Xu, University of Sydney	Improving adversarial robustness of DNNs via Neural Architecture Search	250	0	0
Alister Page, University of Newcastle	High-Throughput Quantum Chemistry for Non-Aqueous Specific Ion Effects	250	0	0
Gavin Huttley, The Australian National University	Modelling point mutations	175	0	1
Kasimir Gregory, The Australian National University	Solvents and electrolyte structures under confinement: monolayers and molecular lines	236	0	1
Con Doolan, University of New South Wales	Targeted Simulation of Complex Turbulence Interaction	250	0	0
QJ Wang, University of Melbourne	Evaluating and adjusting to hydroclimatic variability − better forecasts, better management	250	0	0
Fiona H.M. Tang, University of New England	Australian grape-wine-tourism in a changing climate	232	0	0
Ben Moore, Ivan Kotzur, University of Western Sydney	Modelling foliar moisture in koala habitat of eastern Australian using satellite data and radiative transfer methods.	30	0	70
Cheong Xin Chan, University of Queensland	Understanding heat tolerance of coral algal symbionts	250	0	0
Tim Bedding, University of Sydney	Filling the Missing Pieces in Stellar Physics with Asteroseismology	250	0	0
Hongtao Zhu, University of Wollongong	Multi-scale modeling of High-entropy Alloys for Fusion Energy Applications	241.9	0	0

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Dries Verstraete, University of Sydney	Developing a Computational Framework for Design Optimisation of eVTOL Propulsion	140	0	0
Marco Fronzi, University of Technology Sydney	Quantum mechanics and machine learning models for novel 2-dimensional van der Waals materials discovery	250	0	0
Ming Zhao, University of Western Sydney	Numerical study of a floating OWC (oscillating water column) device	500	0	0
Daniel Linton, University of Sydney	Towards Physics Informed, Data-Driven Optimisation of Wind Farms	250	0	0
Timothy Barrows, University of Wollongong	Investigating the controls on the extent of tidewater glaciers using dynamical downscaling of climate reanalysis	250	0	0
Belinda Medlyn, University of Western Sydney	Modelling carbon uptake and fuel loads using process-based global vegetation models	218	0	32
Roberta Carluccio, University of Sydney	Evolution and dynamics of the lithosphere and shallow mantle at subduction zones	240	0	6
Rebecca Runting, University of Melbourne	Downscaling hydroclimate projections to advance integrated land-sea planning	237.5	0	12.5
Dominik Jaskierniak, University of Newcastle	Applying deep learning methods for extrapolating Uncrewed Aircraft Systems (UAS) LiDAR across the landscape	244	0	6
Zongyou Yin, The Australian National University	High-throughput DFT screening of high-performance photo/electrocatalysts catalyst for modern energy conversion	200	0	50
Zhaoyu Li, University of Western Australia	Developing novel integrated biomarkers for cancer prevention	150	50	50
Min Hong, University of Southern Queensland	Computationally driven high-performance thermoelectric materials and devices	100	20	30
David Fletcher, University of Sydney	Heart disease project	100	0	0