Adapter Allocation Scheme Recipients – Q3 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 Q3 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	100	25	25
Amila Madhusanka Kumara Wickramasinghe, The University of Tasmania	Parametric Analysis of Ember Attack in the Wildland Urban Interface (WUI)	200	20	20
Andrew Johnstone, The University of Wollongong	Jet wiping of Protective Metallic Liquid Coatings	250	0	0
Andrey Molotnikov, RMIT University	Integrated Computational Materials Engineering (ICME) Driven Ultra-sound Assisted Additive Manufacturing of Metallic Alloys	175	0	5
Ariaan Purich, Monash University	Assessing the sensitivity of Southern Ocean deep convection to varying freshwater additions in ACCESS-ESM1.5	242	0	8
Bagus Nugroho, Melbourne University	The far field flow of submarine	250	0	0
Cesar Menendez Muniz, The University of Sydney	Photocatalytic multiferroic oxide thin films for hydrogen production	250	0	0

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Chang Xu, The University of Sydney	Adversarial Robustness via Random Projection Filters	250	0	0
Chaoyang Jiang, The University of New South Wales	High-fidelity numerical simulations of the interaction between isotropic/anisotropic turbulence and an airfoil	250	0	0
Charitha de Silva, The University of New South Wales	Computational flow dynamics of airborne droplets in indoor settings.	250	0	0
Danial Jahed Armaghani, The University of Tasmania	Study of the dissolution mechanism of calcium silicate materials at the molecular level	250	0	0
Daniel Lester, Royal Melbourne Institute of Technology	Fundamentals and Stochastic Modelling of Thixotropic Turbulence	250	0	0
Declan Finn Keogh, The University of Sydney	Dynamics of the Large-Scale Circulation in spatially extended cylinders	250	0	0
Dong Gong, The University of New South Wales	Out-of-Distribution Detection and Domain Adaptation with Deep Learning and Pre-trained Models	120	0	10
Max Ward, The University of Western Australia	RNA Design	120	0	5
Puja Paul, Monash University	A comprehensive CFD modelling of gyroid catalytic e-reactor for dry reforming of methane	173	0	2

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Duncan Sutherland, The University of New South Wales	Physics based simulations of merging parallel fires.	250	0	0
Eirini Goudeli, The University of Melbourne	Leaching rate of nanosilver by reactive molecular dynamics simulations	246.8	0	1.5
Gang Zheng, Western Sydney University	Predicting proton exchange rate for thiol CEST agents by energetic calculations	250	0	0
Haobo Li, The University of Adelaide	Data-Driven C-C Electro-Coupling Mechanism Exploration for Green Chemical Production	250	0	0
Ivica Janekovic, The University of Western Australia	Using Python/Dask/Jupyter to analyse large volume of ocean-atmosphere model and observed data	100	75	0
Jamie Hicks, The Australian National University	Upcycling CO and CO2 into Fine Chemicals	100	0	0
Joe Lane, The University of Queensland	Understanding Weather Uncertainty for Modelling Long-term Decarbonisation Strategy	198	33	19
Joseph Berry, The University of Melbourne	High-fidelity simulations of cryogenic Hydrogen plumes	150	0	0
Joshua J Brown, The University of Newcastle	Molecular Dynamics Screening of Adsorption Energies of Phage Display Generated Peptide Sequences on Silver & Silica Surfaces	243	0	3

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Juergen Knauer, Western Sydney University	Modelling trends in the global land carbon cycle	85	0	25
Juntao Wang, Western Sydney University	Global crop microbiome and drought tolerance research	200	0	100
Kasimir Phennah Gregory, The Australian National University	How do different ions interact with a representative amide molecule?	124	0	1
Kittikun Songsomboon, The University of Sydney	Artificial Intelligence-based Protein-protein Interactions in Placentation of Saiphos equalis	125	0	0
Lukasz Laniewski-Wollk, The University of Queensland	Towards a stochastic model of particle transport and settling in rough fractures	245	0	0
Md Zakir Hossain, Curtin University	Deep Learning for Cancer Prognostication	230	0	20
Meng Li, Queensland University of Technology	Advance GeTe-based thermoelectric materials using computer-aided technologies	150	0	50
Methma Rajamuni, The University of New South Wales Canberra	Effects of near-surface turbulence on ember storms in cleared areas near the wildland-urban interface (WUI)	246	0	4
Minh Bui, The Australian National University	Novel machine learning methods for phylogenetic inference.	176	0	0

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Mohammad Shakil Ahmmed, The University of Queensland	Computational Fluid Dynamics for Investigating Greenhouse Gas Emission in Wastewater Treatment Plants	250	0	0
Pablo Acera Mateos, Children's Cancer Institute	In-silico screening of drug-induced mRNA instability for cancer therapeutics	100	0	20
Quang Duy Nguyen, The University of Sydney	Utilising blockage effects for heat transfer enhancement	250	0	0
Quang Kim Loi, The University of Queensland	The effect of polarisation to ion pairing of electrolytes under confinement	200	0	0
Sebastian Galindo Lopez, The University of Sydney	Advanced Modelling of primary atomisation for Earth applications.	250	0	0
Simon Haine, The Australian National University	Many-body Quantum Dynamics for Advancing Future Technology	200	0	0
Simon Murphy, The University of Southern Queensland	Quantifying and improving the accuracy of stellar ages with asteroseismology.	180	0	20
Svetlana Tkachenko, The University of New South Wales	Novel and environmentally sustainable ultra-high efficiency micro-HVAC system – development of indoor airflow model to assess effect of Fan Coil Unit (FCU) setup on ventilation efficiency in any room	243.75	0	6.25

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Syed Assad, The Australian National University	Quantum-inspired algorithm for combinatorial optimisation problems	245	0	5
Tanveer Hussain, The University of New England	Nanosensors for efficient detection of selected chemical warfare agents	250	0	0
Teng Lu, The Australian National University	Atomistic simulation workflows for neutron scattering experiments.	171	0	9
Timothy John Gould, Griffith University	Advancing quantum chemistry methods for excited states and solvents	100	0	0
Tom Gedeon, Curtin University	Advanced Fall Prevention and Privacy Preservation for Elderly Using Deepfake Face Transfer	220	0	30
Vijini Mallawaarachchi, Flinders University	Large Graph Models and Variation Analysis in Viral Metagenomes	230	0	20
Xiaowan Bai, The University of Adelaide	Proding the stability of single-atom Fe-N-C catalysts in acidic oxygen reduction reaction	180	0	70
Xin Jin, The University of New South Wales	Vibration Motion Optimization of a Banana Vibrating Screen for Waste Silicon PV Panel Recycling	184	0	45
Yongjun Peng, The University of Queensland	Investigating the surface properties of different pyrrhotite structures	200	0	50

Lead CI, Institution	Project Title	Gadi allocation (KSU)	Nirin Cloud allocation (KSU)	Storage allocation (KSU)
Yuxiang Qin, The University of Melbourne	FENICE: the First galaxies and Environment in Cosmological simulations of Early universe	200	0	50
Yuxiang Wang, Monash University	Atomic mechanisms of ultrafast proton transport in monolayer nanosheets-based nanochannel membrane	248	0	2