

## EDUCATION, SCIENCE AND TRAINING

### SENATE LEGISLATION COMMITTEE 2003-2004 ADDITIONAL ESTIMATES HEARING

**Outcome:** 1  
**Output Group:** ARC

#### **DEST Question No. E699\_04**

Senator Carr asked on 18 February 2004, EWRE Hansard p. 28.

#### **Question:**

On the US free trade agreement, the international collaboration, the linkage projects and discovery projects: on page 7 of your Annual Report you comment on the international collaboration with the United States. You say that collaboration has now extended to 276 projects. Are you able to provide details on those projects?

#### **Answer:**

*International collaboration with the United States*

The ARC has provided the following response:

In the ARC Annual Report 2002–03 (page 7), the ARC indicated that new Discovery-Projects grants announced in 2002 (for funding commencing in 2003) included 276 projects involving collaboration with the United States.

Details of these projects are provided in the table attached. The details provided are:

- Project ID;
- First-named Chief Investigator;
- Administering Organisation;
- Project Title; and
- Total Expected Funding.

The projects listed include an additional four projects involving collaboration with the United States which were on the reserve list at the time of the Minister's announcement. A number of projects on the reserve list were funded subsequent to the Minister's announcement.

### Discovery Projects: Grants commencing in 2003 involving collaboration with the United States

Project ID	First-named Chief Investigator	Administering Organisation	Project Title	Funding (2003–07) (\$)
DP0342446	Liu, J	The University of Western Australia	Investigation of coupled processes during underground coal gasification	229,000
DP0342478	Ellingsen, S	University of Tasmania	Masers: High resolution probes of star formation	180,000
DP0342488	Bierlein, F	The Australian National University	Rich cousin, poor cousin? What controls the formation and size of orogenic gold deposits?	60,000
DP0342496	Smith, S	The University of Adelaide	Targeted analysis of the arbuscular mycorrhizal symbiosis phenome in a model host, tomato	315,000
DP0342500	McCulloch, P	University of Tasmania	Structure and evolution of high brightness temperature cores of quasars and galaxies	330,000
DP0342503	Tregoning, P	The Australian National University	Caught in a vice: Modelling crustal deformation in Papua New Guinea	380,000
DP0342520	Barwick, S	The University of Adelaide	Characterizing and classifying ovoids, flocks and generalized quadrangles	210,000
DP0342529	Radom, L	The University of Sydney	Computational quantum chemistry study of molecular structures, stabilities and reactions	310,000
DP0342540	Wilson, M	University of Western Sydney	Aggregate structure of humic organic matter	120,000
DP0342542	Cairns, I	The University of Sydney	Field statistics of space and astrophysical phenomena	455,000
DP0342543	Danyushevsky, L	University of Tasmania	The role of melting of oceanic crust within the subduction factory: A melt inclusion approach	110,000
DP0342561	Batchelor, M	The Australian National University	The mathematics and physics of interacting systems	1,011,300
DP0342569	Griffiths, R	The Australian National University	The fluid dynamics of lava flows: Silicic domes and basaltic channels	220,000
DP0342577	Stranger, R	The Australian National University	Activation and scission of small molecules using three-coordinate metal complexes	255,000
DP0342581	Martinac, B	The University of Western Australia	Early evolutionary origins of mechanosensory transduction: Structure, function and phylogenetic studies of the family of mechanosensitive channels in cell-walled organisms	580,000
DP0342585	Akhmediev, N	The Australian National University	Multi-soliton complexes	245,000

Project ID	First-named Chief Investigator	Administering Organisation	Project Title	Funding (2003–07) (\$)
DP0342587	Kelly, A	Griffith University	The initiation, development, and maintenance of alcohol/tobacco use in adolescents: The role of associative memory	124,000
DP0342590	Hutton, C	The University of Sydney	Total synthesis of the microsclerodermins: Anti-fungal cyclic peptides	248,000
DP0342613	Norris, J	The Australian National University	The first stars and the chemical enrichment of the universe	375,000
DP0342617	Macnae, J	RMIT University	Airborne electromagnetic estimation of groundwater quality and distribution in the top 100m of the earth	170,000
DP0342618	Kennett, B	The Australian National University	Craton edges and sutures in the Australian mantle	340,000
DP0342656	Humphreys, M	The University of Queensland	Using converging methodologies to understand episodic and semantic memory	180,000
DP0342668	Reid, J	University of Tasmania	Genetic and hormonal interactions controlling shoot growth	300,000
DP0342683	Anderson, B	The Australian National University	Safe adaptive control	253,035
DP0342702	Pelejero, C	The Australian National University	Uptake of atmospheric CO <sub>2</sub> in the oceans and implications for global change: New proxy developments	263,035
DP0342704	Lambeck, K	The Australian National University	Looking back to see the future: Change in the Lambert Glacier and the East Antarctic Ice Sheet	530,000
DP0342706	Sevick, E	The Australian National University	Experimental demonstrations of violations of the second law of thermodynamics	445,000
DP0342709	Harrison, T	The Australian National University	A mission to very early earth: When did conditions suitable for life emerge on earth?	300,000
DP0342724	Zhang, Y	The University of Queensland	Algebraic structures and correlations in quantum many-body systems	60,000
DP0342740	Golz, J	Monash University	Genetic control of plant organ growth	840,000
DP0342748	Hurley, J	Monash University	Virtual star clusters: The dynamics and evolution of stars and planets	245,000
DP0342760	Mackay, J	The University of Sydney	Characterization of erythroid differentiation related factor (EDRF): A novel $\alpha$ -globin binding protein	579,000
DP0342772	Ireland, T	The Australian National University	Lithic Astronomy: The age and origin of the elements and their incorporation in the solar nebula	195,000

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DP0342788	Grün, R	The Australian National University	Stable isotopes in marsupials: Reconstruction of environmental change in Australia	210,000
DP0342795	Dryzek, J	The Australian National University	The theory and practice of deliberative democracy	214,000
DP0342815	Gibson, J	University of Tasmania	Antarctic freshwater lake fauna: Palaeobiogeography, palaeoecology and applications to climate change studies	240,000
DP0342826	Bowie, A	University of Tasmania	Targeting organically-complexed iron species in seawater using selective solid-phase adsorbent resins	275,035
DP0342844	McGregor, P	The Australian National University	Galactic nuclei: How old, how massive, and how active?	255,000
DP0342849	Mahony, R	The Australian National University	Image based visual servo control of dynamic under-actuated systems	172,536
DP0342853	Altman, D	La Trobe University	New concepts of human security and aids	174,750
DP0342857	Drinkwater, M	The University of Queensland	Galactic cannibalism: The link between dwarf galaxies and globular star clusters	180,000
DP0342858	Cobb-Clark, D	The Australian National University	Public policy and immigrant settlement in Australia	108,000
DP0342862	Clarke, G	The University of Sydney	High-P partial melting and melt escape from the lower crust: the evolution of a Cretaceous Island Arc, Fiordland NZ	335,000
DP0342864	Eckhardt, G	The University of New South Wales	Cross-cultural differences in perceptions of consumption ethics	122,500
DP0342866	Bottomley, S	Monash University	The structure function and biology of serpins	450,000
DP0342874	Soong, W	The University of Adelaide	Wide speed range, inverterless, constant current mode alternator	114,021
DP0342890	Clarke, G	The Australian National University	Hellenistic Jebel Khalid on the Euphrates, North Syria: the archaeology and history of a Seleucid settlement	205,000
DP0342900	Ostrovskaya, E	The Australian National University	Nonlinear atom optics of Bose Einstein condensates in optical lattices	353,035
DP0342902	Macdonald, D	The Australian National University	Lifetime spectroscopy of impurities in silicon solar cells	253,035
DP0342909	Braun, J	The Australian National University	Constraining landform response to tectonic and climate changes in an active orogen: A multi-disciplinary approach	385,000

Project ID	First-named Chief Investigator	Administering Organisation	Project Title	Funding (2003–07) (\$)
DP0342929	Wiltshire, J	La Trobe University	Recreating Mansfield Park: The Cambridge edition of Jane Austen's novel	67,000
DP0342943	Driver, S	The Australian National University	The structural and physical properties of galaxies over the past 10Gyears	275,000
DP0342953	Gray, S	The University of Queensland	Quantification issues in corporate valuation, the cost of capital, and optimal capital structure	126,000
DP0342957	Pybus, C	University of Tasmania	Transatlantic slavery, the African Diaspora and the unfree settlement of Australia, 1750-1850	190,000
DP0342970	Wooden, M	The University of Melbourne	The dynamics of economic and social change: An analysis of the household, income and labour dynamics in Australia survey	360,000
DP0342974	Quiggin, J	The Australian National University	Risk and Australian public policy	893,950
DP0342985	Pettitt, A	Queensland University of Technology	New developments for Bayesian statistical models and computational methods	135,000
DP0342990	Liang, W	The Australian National University	Design efficient routing protocols for WDM optical networks	50,000
DP0343004	Newbigin, E	The University of Melbourne	Does a novel class of small RNA molecules control self-incompatibility in solanaceous plants?	60,000
DP0343014	Fitzgerald, M	The University of Sydney	An analysis of research ethics and the ethical review process as culture and cultural process	174,000
DP0343016	Sampford, C	Griffith University	The ethics of international intervention for humanitarian, pro-democratic and anti-terrorist reasons: the legal, ethical and institutional means of regulating interventions	509,000
DP0343023	Mathas, A	The University of Sydney	Quantized representation theory	185,000
DP0343028	Filar, J	University of South Australia	New analytical perspectives on the algorithmic complexity of the Hamiltonian Cycle Problem	172,536
DP0343030	Trudinger, N	The Australian National University	Variational problems of Monge-Ampere type	424,000
DP0343064	Gruetzner, F	The Australian National University	Solving the mysteries of monotreme chromosomes	390,000
DP0343093	Treffner, P	Griffith University	Dynamics of locomotion: Visualisation in skill acquisition & rehabilitation	140,000

Project ID	First-named Chief Investigator	Administering Organisation	Project Title	Funding (2003–07) (\$)
DP0343094	Rubinsztein-Dunlop, H	The University of Queensland	Quantum atom optics and single atom detection with Micro-Bose-Einstein condensates	1,390,000
DP0343096	Langford, S	Monash University	Peptide nucleic acid based sensors and devices - an investigation into PNA versatility for emerging gene technologies	285,000
DP0343104	Wilce, M	The University of Western Australia	Molecular machines: Regulation of the catalysis and rotation of the enzyme ATP synthase	310,000
DP0343112	Miller, K	The University of Western Australia	Real time computer simulation of human soft organ deformation for computer assisted surgery	243,000
DP0343152	Bartlett, S	Macquarie University	Optical realisations of continuous-variable quantum information	208,035
DP0343160	Pogson, B	The Australian National University	The mechanisms of photoprotection in plants - a genomics and photophysical approach	330,000
DP0343172	Chong, M	The University of Melbourne	The structure of turbulence at high Reynolds numbers	303,000
DP0343204	Westoby, M	Macquarie University	Plant species economics and strategy-dimensions of plant ecology	990,000
DP0343216	Stevenson, R	Macquarie University	Developing and testing a mnemonic theory of odour perception	168,000
DP0343239	Neeman, A	The Australian National University	Derived categories and their applications, especially in k-theory, topology and algebraic geometry	637,000
DP0343327	Price, G	The Australian National University	Molecular analysis of photosynthetically-linked, active CO <sub>2</sub> uptake and CO <sub>2</sub> signal transduction by cyanobacteria (blue-green algae)	60,000
DP0343334	Morwood, M	The University of New England	Astride the Wallace Line: 1.5 million years of human evolution, dispersal, culture and environmental change in Indonesia	810,000
DP0343345	Ridgway, M	The Australian National University	Atomic-scale identification of amorphization and relaxation processes in compound semiconductors	285,000
DP0343346	Williamson, R	The Australian National University	Analysing iterative machine learning algorithms with information geometric methods	159,264
DP0343347	Lithgow, T	The University of Melbourne	Structure and function of the protein translocation channels in the mitochondrial outer membrane	159,000
DP0343350	Crozier, S	The University of Queensland	Advanced MRI engineering	1,031,300

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DP0343352	Ohnishi, S	The Australian National University	Friction and capillary forces	548,000
DP0343362	Booth, D	University of Technology, Sydney	Living on the edge: Settlement dynamics of reef fishes across their ranges	115,000
DP0343368	Pocock, B	The University of Adelaide	Theoretical and policy implications of changing work/life patterns and preferences of Australian women, men and children, households and communities	246,000
DP0343385	Matthews, J	The University of Sydney	Dissecting a hematopoietic transcription factor complex	270,000
DP0343390	Ninham, B	The Australian National University	Ionic dispersion forces in physical chemistry: Implications for pH, electrochemistry, nanoparticle formation and organic synthesis	270,000
DP0343391	Luiten, A	The University of Western Australia	Creation of new precision optical and microwave technologies and their application to testing the fundamental of physics	1,846,040
DP0343405	Bernhardt, P	The University of Queensland	Mechanistic studies of dimethylsulfide dehydrogenase: A novel bacterial molybdoenzyme	265,000
DP0343412	Kolsky, S	The University of Melbourne	Making and unmaking woman: Boccaccio's De mulieribus claris [famous women] in its medieval and Renaissance contexts	184,000
DP0343446	van Driel, I	The University of Melbourne	Biochemical, genomic and phenomic analysis of gastric parietal cells from wildtype and mutant mice	155,000
DP0343454	Bacic, A	The University of Melbourne	Assembly and function of arabinogalactan-proteins: A class of proteoglycans involved in plant growth and development	420,000
DP0343480	Keene, F	James Cook University	Dinuclear ruthenium complexes as sequence- and structure-selective binding agents for DNA	300,000
DP0343528	Wysocki, T	University of Wollongong	Space-time block codes using orthogonal, amicable, and general designs	199,080
DP0343530	Fu, L	The Australian National University	Growth and intermixing of quantum dots for multi-wavelength infrared photodetectors	255,000
DP0343550	Griffen-Foley, B	Macquarie University	Beyond the Bakelite Box: A history of commercial radio in Australia	556,565
DP0343552	Harris, J	The University of Sydney	The contribution of early sensory cortex to working memory	157,000
DP0343563	Harding, M	The University of Sydney	Antifreeze proteins and glycoproteins	280,000

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DP0343567	Pattison, P	The University of Melbourne	Modelling dynamic interactive social processes	246,250
DP0343570	Magrath, R	The Australian National University	Communication and predation in scrubwrens: Alarm calls and eavesdropping	165,000
DP0343575	Jackson, F	The Australian National University	Understanding phenomenal experience as a natural part of our world	189,000
DP0343586	Kane-Maguire, L	University of Wollongong	Light-driven chemistry with nanostructured polyanilines	682,275
DP0343588	Hinde, D	The Australian National University	Dynamics of nuclear fusion: Evolution through a complex multi-dimensional landscape	575,000
DP0343616	Mendelson, S	The Australian National University	Geometric parameters in learning theory	100,000
DP0343619	Trinder, J	The University of Melbourne	Sleep and circadian influences on mood and autonomic nervous system control of the heart	179,000
DP0343627	English, L	Queensland University of Technology	Mathematical modelling in early education	203,000
DP0343632	Louviere, J	University of Technology, Sydney	Modelling the choices of individuals	197,000
DP0343646	Lister, G	Monash University	Tectonic reconstruction of the evolution of the alpine-Himalayan orogenic chain	710,000
DP0343654	van Schaik, F	The University of Sydney	Dynamic signal processing with currents	296,534
DP0343673	Shine, R	The University of Sydney	Ecological and evolutionary impacts of toxic prey	925,000
DP0343678	Pawley, A	The Australian National University	Proto oceanic language, culture and environment: foundations of the Austronesian settlement of the Pacific	270,000
DP0343704	Smith, M	The Australian National University	Reasons and rationality	195,000
DP0343727	Wilson, S	The Australian National University	Statistical advances in the post-genome era	385,000
DP0343765	Dewar, R	The Australian National University	Studies of turbulence and coherent structures in quasi two-dimensional plasmas and fluids	605,000
DP0343768	Aberle, A	The University of New South Wales	Development of polycrystalline silicon thin-film photovoltaic devices on glass	491,000



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DP0343778	Walker, J	The University of Melbourne	Gravity changes, soil moisture and data assimilation	277,000
DP0343829	Rood, J	Monash University	Functional genomics of large clostridial plasmids	306,000
DP0343832	Wood, P	The Australian National University	Dying stars, mass loss and the creation of the elements	270,000
DP0343898	Mac Nally, R	Monash University	Reconstructing landscapes for biodiversity: From predictive modelling to future scenarios	300,000
DP0343915	Dawson, B	The University of Adelaide	Studies of the highest energy particles in nature	328,035
DP0343944	Clemens, J	Deakin University	Science, knowledge and the transmission of psychoanalysis	122,000
DP0343991	Oitmaa, J	The University of New South Wales	Theoretical studies of strongly correlated quantum states in novel condensed matter systems	710,000
DP0343998	Rubinov, A	University of Ballarat	Operations research without convexity	335,000
DP0344004	Hyde, S	The Australian National University	The architecture of networks: Characterisation and visualisation of complex systems as fluctuating networks	687,275
DP0344011	Ferry, B	University of Wollongong	Investigating a classroom simulation designed to support pre-service teacher decision making in planning and implementing literacy teaching	160,500
DP0344013	Zukerman, I	Monash University	A minimum message length approach for discourse interpretation	198,000
DP0344016	Maddern, P	The University of Western Australia	Beyond the family: Fragmented families and household strategies in England, 1400-1830	340,467
DP0344023	Vanderklift, M	The University of Western Australia	Evaluating the influence of trophic connections between marine habitats on the effectiveness of marine protected areas	235,000
DP0344039	Baghirov, A	University of Ballarat	Approximate bundle methods in nonsmooth optimisation and their applications in some complex systems	193,035
DP0344050	Ziviani, J	The University of Queensland	Physical activity in the construction of occupation for primary school aged children	150,000
DP0344059	Burnett, I	University of Wollongong	Sound and shape synthesis using tensegrity particle systems	50,000
DP0344062	Karoly, D	Monash University	Improving projections of regional climate change for Australia using detection and attribution studies	240,000

Project ID	First-named Chief Investigator	Administering Organisation	Project Title	Funding (2003–07) (\$)
DP0344063	Welberry, T	The Australian National University	Development of methods and strategies for the measurement, interpretation and analysis of diffuse x-ray scattering from disordered materials	245,000
DP0344080	Carter, R	The University of Adelaide	The stratigraphic architecture of continental margins (MARGINS)	235,000
DP0344091	Wysocki, K	The University of Melbourne	Holomorphic curves, reeb flows and contact topology	185,000
DP0344092	Heyde, C	The Australian National University	Problems of identification and inference for 'non-standard' models in complex systems with special reference to finance and teletraffic	215,000
DP0344111	Du, Y	The University of New England	Free boundary problems in partial differential equations and related topics	158,000
DP0344114	Mengersen, K	The University of Newcastle	New Bayesian methodology for understanding complex systems using hidden Markov models and expert opinion, environmental, robotics and genomics applications	195,000
DP0344123	Bowie, J	The University of Adelaide	Biologically active peptides and proteins from anurans: The relationship between structure and activity	345,000
DP0344146	Barley, M	The University of Western Australia	Precise global time scale for the oxidation of earth's atmosphere between 2.6 and 2.0 billion years ago	350,000
DP0344182	Dey, S	The University of Melbourne	Fast signal processing and control algorithms for complex hierarchical systems	180,075
DP0344196	Thiagarajan, K	The University of Western Australia	Modal and directional characteristics of seastates and their impact on dynamics of moored offshore systems	274,000
DP0344198	Buckman, S	The Australian National University	A microscope for molecular reactions	245,000
DP0344219	Alford, R	James Cook University	Beyond abundance: An experimental study of the effects of predators on prey behaviour and reproduction	96,000
DP0344220	Nugent, K	The University of Melbourne	Advanced x-ray optical systems: From innovative idea to intelligent implementation	912,275
DP0344221	Andrews, B	The Australian National University	Geometric evolution equations and global effects of curvature	400,000
DP0344234	Bond, A	Monash University	A blueprint for an intelligent instrumental, theoretical and experimental unification of a myriad of voltammetric and related electrochemical techniques	1,070,000

Project ID	First-named Chief Investigator	Administering Organisation	Project Title	Funding (2003–07) (\$)
DP0344241	Leech, S	The University of Melbourne	Impact of intelligent decision aids on human knowledge acquisition	144,000
DP0344302	Yap, A	The University of Queensland	Control of actin assembly by cell-cell adhesion: molecular effectors and higher order function	240,000
DP0344304	Volkas, R	The University of Melbourne	Particle physics and cosmology of neutrinos	235,000
DP0344307	Lee, M	The University of Adelaide	Major evolutionary events in reptiles (including birds)	625,000
DP0344310	Burgess, S	The University of Western Australia	Ecophysiological limitations that affect water and carbon balance within large tree canopies: A comparative investigation	60,000
DP0344330	Wang, S	The University of Western Australia	Numerical algorithms for constructing feedback control laws	172,536
DP0344338	Bennamoun, M	Queensland University of Technology	An automated 3D model-based object recognition system	242,242
DP0344349	Abbott, D	The University of Adelaide	Novel RF controlled electromechanical microvalve	50,000
DP0344356	Mulvaney, P	The University of Melbourne	Material properties of nanocrystals	141,000
DP0344361	Harris, J	The Australian National University	Localised instabilities in magnetically confined plasmas heated by radio waves	162,000
DP0344376	Sadus, R	Swinburne University of Technology	Investigation and prediction of the novel properties of dendrimers	135,000
DP0344390	Sloan, I	The University of New South Wales	Advanced computational algorithms for three-dimensional systems	455,000
DP0344452	Murray, M	The University of Adelaide	Monopoles, instantons and metrics	195,000
DP0344455	Gould, M	The University of Queensland	Metallic nanograins: Superconducting correlations, Josephson tunneling and conformal field theory	245,000
DP0344462	Li, C	The University of Western Australia	Symmetrical graphs, generalized polygons and expanders	589,275
DP0344466	Finnane, A	The University of Melbourne	Fashionable times: an inquiry into the history of China's modernity	99,000
DP0344471	Samson, D	The University of Melbourne	Assessment of innovation capability models to create innovation driven companies	190,000

Project ID	First-named Chief Investigator	Administering Organisation	Project Title	Funding (2003–07) (\$)
DP0344560	Hall, S	The University of Western Australia	Intelligent ontologies: The genesis of data interoperability in the life sciences	145,000
DP0344571	Rudolph, V	The University of Queensland	Multi-component gas transport in deep coal	340,000
DP0344579	van der Poorten, A	Macquarie University	Continued fractions and torsion on hyperelliptic curves	60,000
DP0344684	Jin, C	The University of Sydney	Mobile spatial-audio telecommunication systems	289,437
DP0344688	Duong, X	Macquarie University	Boundedness of Singular integral operators and applications to Bochner-Riesz summability, Riesz transforms, and Hardy spaces	185,000
DP0344744	Tapper, N	Monash University	Fire scar impacts on surface heat and moisture fluxes in Australia's tropical savanna and feedbacks to local and regional climate	210,000
DP0344745	Hopkins, S	Curtin University of Technology	Private health insurance and utilisation of health care in Australia	75,000
DP0344746	De Marco, R	Curtin University of Technology	Probing the interfaces of electrochemical sensors	160,000
DP0344749	van Kraayenoord, C	The University of Queensland	Intervention for written expression: Middle school students with developmental disabilities	166,000
DP0344762	Fellows, M	The University of Newcastle	Parameterized algorithm design and complexity analysis: New methods and strategic applications in the FPT algorithmic server project	165,000
DP0344773	Weiss, A	The University of Sydney	Biochemistry of tropoelastin and elastin	300,000
DP0344777	Safavi-Naini, R	University of Wollongong	Enhancing privacy for digital communication	155,000
DP0344784	Nesic, D	The University of Melbourne	Nonlinear systems with disturbances: Analysis, controller design and tradeoffs	240,000
DP0344785	Craig, D	The University of Newcastle	Shakespeare, the early modern theatre and computational stylistics	109,008
DP0344803	Zhou, S	The University of Melbourne	Interconnection network routing and graph symmetry	253,035
DP0344841	Veevers, J	Macquarie University	Mapping under the ice - crustal evolution in Antarctica and the assembly of Gondwanaland	60,000

Project ID	First-named Chief Investigator	Administering Organisation	Project Title	Funding (2003–07) (\$)
DP0344856	Grant, A	University of South Australia	Iterative architectures for data communications	180,000
DP0344908	McArthur, I	The University of Western Australia	Low energy effective actions in supersymmetric gauge theories	245,000
DP0344909	Morris, B	The University of Sydney	RNA splicing: Factors and mechanisms	210,000
DP0344913	Volkas, R	The University of Melbourne	In and beyond the standard model of particle physics	162,000
DP0344921	Bergmann, N	The University of Queensland	Reconfigurable computing implementations of reactive systems	180,000
DP0344924	Botella, J	The University of Queensland	The other half of the G-protein story: Functional analysis of the plant G-protein gamma subunits	255,000
DP0344932	De Deckker, P	The Australian National University	High-resolution records of climatic change in Australia, both on land and at sea covering the last 20,000 years	380,000
DP0344941	Renfree, M	The University of Melbourne	Re-uniting marsupials and eutherians by embryonic micromanipulation	180,000
DP0344961	Wardle, M	The University of Sydney	Interstellar gas dynamics	255,000
DP0344970	McLachlan, G	The University of Queensland	Classification of microarray gene-expression data	126,900
DP0344998	Prawer, S	The University of Melbourne	Diamond quantum dots fabricated by ion implantation	310,000
DP0345001	Briggs, F	The Australian National University	Atomic hydrogen through cosmic time: Steps to the square kilometre array	60,000
DP0345002	Ashkanasy, N	The University of Queensland	Testing a multi-level theory of emotion in organisations	131,000
DP0345012	Wang, X	University of Wollongong	Fabrication, charge and spin ordering, magnetoresistance, and polaron effects in nano-size and single crystals of novel transition metal perovskite oxides	245,000
DP0345019	Martin, J	The University of Queensland	Investigating the structure, function and inhibition of the adrenaline-synthesizing enzyme PNMT	270,000
DP0345024	Xu, H	The University of Melbourne	The durability of geopolymeric products as a function of the nanostructured gel phase	209,000
DP0345039	Hodgson, C	The University of Melbourne	Geometric structures on 3-manifolds	225,000

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DP0345067	MacLeod, R	The University of Sydney	The genie in the bottle: Science, politics and diplomacy in Australia's engagement with chemical and biological weapons, 1915-1995	200,000
DP0345068	Tyerman, S	The University of Adelaide	Multifunctional channels as key components of biotrophic interfaces in legumes	270,000
DP0345100	Goldsworthy, J	Monash University	Interpreting constitutions: A comparative and theoretical study	85,960
DP0345134	Ng, S	The University of Queensland	On-line and incremental em-based neural networks: Application to hospital utilisation and gene expression data	198,279
DP0345157	Moresi, L	Monash University	Numerical models of plate tectonics, mantle convection and slab dynamics with evolving faults	300,000
DP0345161	Whitehead, J	University of Tasmania	Past east Antarctic ice sheet and global sea-level variations	166,605
DP0345215	Vo, B	The University of Melbourne	Stochastic geometry for multi-sensor data fusion system	270,000
DP0345221	D'Occhio, M	The University of Queensland	Subcellular co-localisation of interacting proteins that control maturation in mammalian eggs	83,000
DP0345290	Qiao, G	The University of Melbourne	Nanogels: Next generation polymeric particles	306,000
DP0345309	Meredith, P	The University of Queensland	Photoactive semiconducting biopolymers	162,000
DP0345311	Kunz, B	Deakin University	Plant genes conferring resistance to ultraviolet radiation	195,000
DP0345326	Anderson, J	The University of Melbourne	Beyond the madonna painter: Reassessing the life, works, and reception of Giovanni Bellini	270,000
DP0345336	Wendt, I	Monash University	Mechanisms of calcium handling and their role in controlling smooth muscle function: Evidence from transgenic mice	255,000
DP0345355	Lindsay, P	The University of Queensland	Building dependability into complex, computer-based systems	165,000
DP0345357	Sridhar, T	Monash University	Fundamental studies in extensional rheology of polymers and biomacromolecules	273,000
DP0345366	Pieprzyk, J	Macquarie University	Algebraic analysis of cryptosystems	225,000
DP0345376	Wilce, M	The University of Western Australia	Structure and dynamics of a multiprotein-mRNA complex involved in the regulation of gene expression	340,000

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DP0345482	Rumsey, A	The Australian National University	Chanted tales from Highland New Guinea: A comparative study of oral performance traditions and their role in contemporary land politics	391,698
DP0345505	Joshi, N	The University of Sydney	Global behaviour of integrable complex systems	195,000
DP0345507	Taylor, P	The University of Melbourne	Modelling, measurement and control of the internet	284,926
DP0345508	Pegg, J	The University of New England	Enhancing basic academic skills of low-achieving students: The role of automaticity in numeracy, reading and comprehension	150,000
DP0345527	Forrester, P	The University of Melbourne	Mathematical studies on the statistical properties of complex systems	556,549
DP0345550	Eastwood, M	The University of Adelaide	Classification and invariants in complex differential geometry	240,000
DP0345572	Henry, B	The University of New South Wales	Diffusion driven pattern formation and signal propagation in spatially complex excitable media	185,000
DP0345580	White, L	The University of Adelaide	Raising the internet's quality of service through improved congestion management	172,536
DP0345613	Anderson, K	The University of Adelaide	Globalization, WTO and sustainable development: New challenges, opportunities and implications for Australia	258,000
DP0345626	Hand, M	The University of Adelaide	Thermal regimes, flexure and duration: Establishing the framework for intracratonic orogeny in central Australia	160,000
DP0345664	Mason, I	The University of New England	Implementing Feferman-Landin Logic	31,500
DP0345717	Bush, M	The University of Western Australia	Evolution of contact damage in layer structures	165,000
DP0345746	Jackson, S	The University of Sydney	Passively switched mid-infrared fibre lasers using saturable absorbers placed internally or externally to the geometry of the fibre	276,000
DP0345758	Savkin, A	The University of New South Wales	Analysis and design of networked control systems	356,000
DP0345767	Crewther, D	Swinburne University of Technology	Phenotypic differences in behaviour, brain function and structure of genetically dissimilar forms of intellectual disability	245,000
DP0345777	Cameron, I	The University of Queensland	Multi-scale, multi-form approach to the modelling, design and control of complex particulate processes	451,000

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DP0345779	Goodwin, G	The University of Newcastle	Towards a unified theory of constrained control and estimation	374,000
DP0345795	Haslam, N	The University of Melbourne	Distinguishing categories and dimensions: Taxometric investigations	98,500
DP0345820	Allen, P	Australian Catholic University	The development of the cult of Mary in North African Christianity (100 - 431 C.E.)	203,245
DP0345832	Feng, D	The University of Sydney	Intelligent biomedical system modelling and multi-modality image analysis to maximize diagnostic information from medical imaging	172,536
DP0345844	Lane, G	The Australian National University	Structure of exotic neutron-rich nuclei populated using novel reaction mechanisms	566,605
DP0345867	Foster, J	The University of Queensland	Nonlinear econometric modelling: A complex systems perspective	60,000
DP0345876	Leis, J	The Australian Museum	Ontogeny of behaviour and sensory abilities in larvae of marine fishes	230,000
DP0345901	McLachlan, G	The University of Queensland	Unsupervised learning of finite mixture models in data mining applications	165,000
DP0345915	Liu, J	Monash University	Functional studies on a novel, brain-specific, Golgi ATP-binding protein in membrane trafficking	315,000
DP0345917	Bloustien, G	University of South Australia	Playing for life: the everyday music practices of marginalised youth as strategic pathways to agency, employment and socio-economic inclusion	370,000
DP0345920	Singh, M	RMIT University	International student mobility and educational innovation: Chinese students and the internationalisation of Australian and American universities	103,500
DP0345931	Gleadow, A	The University of Melbourne	Integrated chronologies and dynamics of continental extension	275,000
DP0345939	Nirmalathas, A	The University of Melbourne	Architectures and system technologies for intelligent photonic packet routers	396,000
DP0345961	Kuchel, P	The University of Sydney	NMR spectroscopy of complex cellular processes	675,000
DP0345994	Catcheside, D	The Flinders University of South Australia	A genomic approach to the mechanism of meiotic recombination in Neurospora	500,000
DP0345996	Kennedy, B	The University of Sydney	Structural and electronic properties of layered bismuth oxides	170,000



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DP0346013	Firth, N	The University of Sydney	Plasmid maintenance and interactions with the host cell and its genome	225,000
DP0346047	Street, R	Macquarie University	Invariants of higher-dimensional categories, with applications	220,000
DP0346054	Warren, J	University of South Australia	Continuous process improvement through workstation feedback for general practice medicine using experts-in-the-loop data mining	155,000
DP0346064	Swan, P	The University of New South Wales	Evaluating the performance of active Australian equity managers utilising their daily portfolio holdings and trades	193,000
DP0346091	Zhao, J	The University of New South Wales	Microelectronic applications of improved silicon light emission	630,000
DP0346105	Zhu, Z	The University of Queensland	Theoretical and experimental studies of catalyst doping and defects in carbon nanotubes for hydrogen storage	215,000
DP0346136	Rengel, Z	The University of Western Australia	Role of intracellular calcium homeostasis and aluminium transport across the plasma membrane in aluminium toxicity to plants	212,000
DP0346162	Lay, P	The University of Sydney	Nanoprobe and microprobe spectroscopic techniques in drug design, probing mechanisms of diseases, and bioinorganic chemistry	276,000
DP0346187	Nielsen, M	The University of Queensland	Quantum entanglement and its role in complex quantum systems	475,000
DP0346223	MacLeod, C	The University of Western Australia	Attentional and interpretive bias in anxiety: Concurrent expressions of a common selective mechanism, or independent mediators of anxiety vulnerability?	260,000
DP0346246	Watchman, A	The Australian National University	Development and application of the uranium-series method for dating ancient rock engravings	249,500
DP0346258	Kohn, R	The University of New South Wales	Bayesian inference for complex regression models using mixtures	172,536
DP0346291	Schiemer, G	The University of Sydney	Pocket gamelan: Tuning musical applications for wireless internet	103,409
DP0346292	Gready, J	The Australian National University	Towards a complete description of how enzymes work: Development of simulation methods and protocols, blind test predictions, and experimental validation	245,000
DP0346313	Sherwin, W	The University of New South Wales	The roles of relatedness and reproductive success in complex social systems of dolphins	300,000

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DP0346320	Hunstead, R	The University of Sydney	The most distant galaxies: probing the early universe	460,000
DP0346325	Nicholson, G	University of Technology, Sydney	Novel insecticidal neurotoxins from Australian spider venoms	135,000
DP0346344	Blair, D	The University of Western Australia	The astrophysical stochastic background of gravitational waves and detection by advanced high optical power interferometers: An Australia-US collaboration	308,035
DP0346374	Nener, B	The University of Western Australia	Charge and interface properties of novel gallium nitride transistor structures for application in low-noise high-frequency electronics	261,000
DP0346394	Vincent, R	The University of Adelaide	Waves in the middle atmosphere	252,000
DP0346405	Parker, S	The University of New South Wales	Motivating employee proactivity by redesigning the work context	213,000
DP0346419	Tong, L	The University of Sydney	Controlled vibration of intelligent super-lightweight structure systems	162,000
DP0346430	Rapajic, P	The University of New South Wales	Adaptive multi-user detectors for mobile space-time communications systems over time variable fading channels	172,536
DP0346488	Schaffer, K	The University of Adelaide	Indigenous life narratives and racial reconciliation in Australia and South Africa	155,000
DP0346556	McGregor, I	The University of Sydney	Defensive behaviours elicited by predator odours	121,000
DP0346641	Masri, A	The University of Sydney	Advanced studies of turbulent combustion: Premixed to non-premixed	400,000
DP0346647	Hoegh-Guldberg, O	The University of Queensland	Tracing the origins of stress in the symbionts of reef-building corals	700,000
DP0346653	Mattick, J	The University of Queensland	Rnomics - the role of introns and other noncoding RNAs in the evolution and development of complex organisms	225,000
DP0346679	Gresshoff, P	The University of Queensland	Systemic control of nodule proliferation	285,000
DP0346686	Graves, J	The Australian National University	Molecular characterization of marsupial genome organization, function and evolution	540,000
DP0346689	Tuthill, P	The University of Sydney	The basic physics of stars: determination of sizes, shapes, masses, temperatures and distances with very high resolution optical interferometry	350,000

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DP0346726	Harvey, R	Victor Chang Cardiac Research Institute	Molecular mechanisms of stem cell self-renewal	240,000
DP0346745	Muddle, B	Monash University	States of aggregation - clustering, segregation, nucleation and nanostructure	488,000
DP0346844	Alewood, P	The University of Queensland	Total chemical synthesis of a redesigned enzyme, HIV-1 PR, containing an artificial tunable catalytic apparatus	260,000