

AUSTRALIA-GERMANY JOINT RESEARCH CO-OPERATION SCHEME

2017-18



UNIVERSITIES
AUSTRALIA

DAAD

Deutscher Akademischer Austauschdienst
German Academic Exchange Service

The scheme acknowledges the financial support of the Australian Government's Department of Education and Training.

FOREWORD

In an ever more globally-connected world, strong relationships with other nations, their economies and their people will shape Australia's future success and prosperity profoundly.

This is particularly true of Australia's relationship with Germany, which is renowned as one of the world's global powerhouses of research and innovation.

That's why this program – which funds brilliant early career researchers from both nations to collaborate on joint research projects – is so important and so valuable.

I am delighted to see this partnership between Universities Australia and the German Academic Exchange Service (DAAD) helping to achieve our goal of closer bilateral cooperation.

The Australia–Germany Joint Research Cooperation Scheme is regarded by the Australia Germany Advisory Group (AGAG), which I am honoured to co-chair, as a highly successful program.

Since its inception in 2015, this scheme has funded 172 separate projects at a total cost of around AUD 6 million. It provides opportunities to hundreds of young academics from both countries and has increased science and research cooperation significantly, one the AGAG's key recommendations.

The current projects range from vital health and medical research to understanding the role of democracy and improving maths education in our schools. Some of the projects are outlined in more detail in the pages of this brochure.

I commend Universities Australia and the DAAD for their ongoing commitment to international academic exchange and their important role in deepening the links between our two countries.



Senator the Hon Mathias Cormann
Minister for Finance
Co-Chair, Australia Germany Advisory Group

ABOUT UNIVERSITIES AUSTRALIA

Universities Australia is the national peak organisation representing Australia's universities. Its mission is to sustain and enhance Australia's university system, ensuring that is of world class standing and supports the nation's progress.

Universities Australia:

- promotes the social, economic, environmental and cultural value of higher education through its relationships with government, industry, the professions and the wider community;
- is an active player in the determination and formulation of public policy, advocating on behalf of Australia's universities;
- provides a number of services aimed at enhancing global engagement including whole of sector research co-operation programs;
- works with government to ensure policy settings allow Australia to compete for the most talented international students.



ABOUT THE DAAD

The German Academic Exchange Service (DAAD) is a joint organisation of German institutions of higher education and their student bodies, devoted to internationalising the academic and scientific research system. Through its scholarship programmes, the DAAD enables students, researchers and university lecturers to take advantage of the best study and research opportunities available.

It promotes transnational cooperation and university partnerships, and is the German national agency for EU higher education cooperation.

The DAAD actively supports Germany's foreign cultural and educational policy goals, national scientific policies and development cooperation efforts. In addition to overseeing the International DAAD Academy (iDA), the DAAD operates a network of 71 Regional Offices and Information Centres worldwide.



INTRODUCTION

The Australia-Germany Joint Research Co-operation Scheme fosters research collaboration of the highest quality between Australia and Germany. It is a joint initiative of Universities Australia and the German Academic Exchange Service (DAAD), Germany's national agency for the support of international academic cooperation.

The scheme supports exchanges for Australian researchers to work with colleagues at partner institutions in Germany and for collaborating German researchers to spend time at Australian universities. The projects most likely to be funded are those including early career researchers as well as offering complementary skills and expertise.

During the first two sector-wide rounds of applications in 2015 and 2016 one hundred and seventy two (172) projects were selected for funding. The exchanges are being carried out between 2016 and 2018.

Australian universities have provided a total of AUD 3.12 million. The DAAD has provided EUR 1.95 million.

A detailed breakdown of the 172 projects funded is available on pages 16-26.

A SELECTION OF PROJECTS FUNDED IN 2017-18

DEMENTIA SONGWRITING PROJECT

The University of Melbourne and the **University of Würzburg** will work together on a project which uses songwriting intervention to assist people with dementia.

Dementia is a global health challenge affecting 46.8 million people worldwide. It leads to poor quality of life for the person with dementia as well as a financial and emotional burden on the caregiver.

This project develops and tests a group songwriting approach designed to address the psycho-emotional needs of dementia sufferers.

Sixty people attending day programs in Melbourne and Würzburg will be organised into control groups for a 6-week program. The sessions will be recorded and analysed to collect data on emotion regulation, depression, and social connectedness.



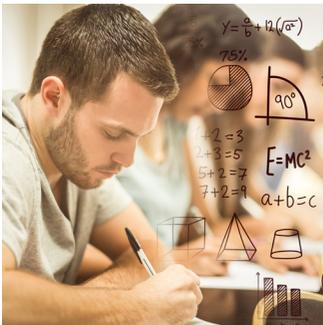
STRENGTHENING MATHS IN TEACHER EDUCATION

Strong mathematical knowledge is essential for a teacher's effectiveness in the classroom.

This collaboration between **Australian Catholic University** and **Technical University Darmstadt** aims to strengthen the mathematical knowledge of teacher education students.

The study will utilise participant interviews and responses to challenging tasks to generate a Framework for Designing Challenging Online Mathematical Tasks. The Framework will provide practical advice on how to enhance teachers' mathematical knowledge through access to quality online resources.

The project brings together cutting edge knowledge of task design, the use of digital tools in mathematics education and effective online pedagogies through the expertise of Professor Vince Geiger, Dr Jodie Miller (Australian Catholic University), Professor Regina Bruder and Ms Ulrike Roder (Technical University Darmstadt).



UNDERSTANDING THE ROLE OF FINANCE IN AGRICULTURE

The University of New England (UNE) and **University of Leipzig** have teamed up to explore the linkages between finance and agriculture from a social science perspective. It looks at the emergence of farmland as a financial asset class and the making of farmers as financial subjects.

UNE is a recognised world leader in the field of rural geography and agrifood restructuring and well placed to help the German partners build on their already existing Australian networks.

The research will offer practical advice for government officials, food practitioners and activists in relation to how food and agriculture are organised within society.

By providing data about how farming families make financial decisions, it will also offer advice for those shaping financial literacy education campaigns for farming households.



OPTICAL SENSING FOR ROBOTIC LASER SURGERY

In Australia more than 55,000 total knee replacements are performed each year. With this project **Curtin University of Technology** and **University of Ulm** aim to develop new optical sensors for high precision orthopaedics such as knee replacement surgery and various other types of medical and dental surgeries.

The team at the University of Ulm has developed various optical sensing techniques for use in medicine while the team at Curtin University is working with the Australian Institute of Robotic Orthopaedics.

Developing this novel surgical system will improve surgical cut quality and patient outcomes and lead to savings in health insurance.



A SELECTION OF PROJECTS FUNDED IN 2016-17

DEVELOPING NOVEL RELIABLE LOW COST HIV PROGNOSTICS

A new collaboration between **RMIT** in Melbourne and **Straubing Centre of Science** in Germany aims to develop a novel suite of prognostic tests that will improve patient access to a certain class of anti-HIV drugs. The project directly addresses the national strategies of both Germany and Australia in fighting HIV.

Professor Gorry at RMIT has established a world-class laboratory that specialises in laboratory HIV research techniques while Professor Heider at the Straubing Center has established a world-class HIV bioinformatics laboratory. Both types of research are required for this project to be successful.

The funding provided by the Australia-Germany Joint Research Cooperation Scheme will allow two young early career researchers to teach each other about their complementary expertise. It will also establish a lasting collaboration between two highly compatible laboratories and potentially inform the administration of particular anti-HIV drugs by clinicians in Australia, Germany and worldwide.



HARNESSING TECHNOLOGY TO REDUCE THE BURDEN OF EATING DISORDERS

The Australian National University (ANU) in Canberra and **University Hospital Heidelberg** will develop an existing partnership which focuses on reducing the burden of eating disorders.

Eating disorders often develop during adolescence. They are severe and chronic mental illnesses whose costs and management present a major challenge for healthcare systems around the world.

The goal of this project is to improve healthcare delivery for young people with an elevated risk or initial symptoms of an eating disorder. It will identify barriers to seeking professional help among young people in Australia and Germany as well as investigate the efficacy of online peer-to-peer support.

The Australian team leader, Professor Kathy Griffiths from the ANU, is an internationally recognised researcher in e-mental health research. The German team leader, Dr Stephanie Bauer, from University Hospital Heidelberg is an expert in the use of technology in the prevention and treatment of eating disorders.

The Australia-Germany Joint Research Cooperation Scheme funding will ensure that five Australian and German early career researchers involved as key collaborators receive enhanced training opportunities.



WHAT IS THE “ISLAMIC STATE”?

The University of Queensland and Humboldt University in Berlin will begin a new collaboration in 2016 with Australia –Germany Joint Research Cooperation Scheme funding.

In 2013 Australia and Germany identified counter-terrorism as a key priority for bilateral co-operation. Both countries acknowledge the Islamic State (IS) challenge.

This project investigates the specific threat IS poses to open multicultural societies.

Dr Sebastian Kaempf and Associate Professor Andrew Phillips from UQ together with Professor Dr Herfried Münkler and Dr Felix Wassermann from Humboldt University are leading academics in diplomacy, conflicts and political theory. This team of researchers seeks to analyse IS strategies and to identify recommendations for disrupting the IS insurgent network state threat.



IRREGULAR FLOW OF FEMALE MIGRANTS

Southern Cross University (SCU) in northern NSW and **University of Marburg** have created a new partnership to investigate the irregular flow of female migrants.

Women are particularly vulnerable to irregular migration such as human trafficking and smuggling, primarily due to the feminisation of poverty. The exploitation of such women poses significant policy challenges.

This project will consider the main socioeconomic push factors of irregular female migration in Australia and Germany which are both destination countries for irregular migrants. It will inform the practice and the policy of migration in the respective countries.

The team leaders are both early career researchers establishing an impressive record in migration studies. They will bring an interdisciplinary approach to the project. Dr Natalia Szablewska from SCU has a legal background and expertise in qualitative methods while Dr Seo-Young Cho from Marburg University has a background in economic and quantitative methods.



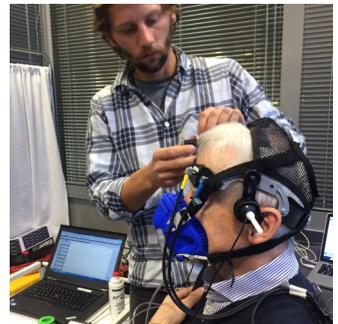
EXERCISE AND THE PROGRESSION OF DEMENTIA

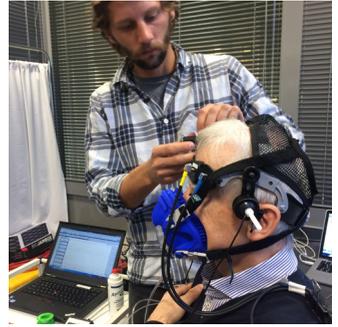
University of the Sunshine Coast and **German Sport University** in Cologne have teamed up to investigate the impact of physical exercise on the progression of dementia.

This project could not be carried out by one group alone. The German group has a strong track record of investigations of the neural responses to exercise and the impact of ageing and cognitive impairment. The Australian group has an extensive record of basic and applied clinical studies of vascular function in older adults.

The exchange enabled by the Australia-Germany Joint Research Cooperation Scheme aims to provide evidence of the clinical efficacy of exercise as part of the treatment of early cognitive impairment, and to better understand the link with cardiovascular function. This is an important outcome given the rising prevalence of dementia, Alzheimer's disease and other age-related conditions in countries like Australia and Germany.

All aspects of the project include the direct involvement of early career researchers.





PROJECTS FUNDED 2017-18

AUSTRALIAN UNIVERSITY PARTNER	GERMAN UNIVERSITY PARTNER	PROJECT TITLE
Australian Catholic University	Technical University Darmstadt	Designing challenging online mathematical tasks (DCOMT): Strengthening mathematical knowledge in pre-service teacher education
Curtin University of Technology	Technical University Munich	Gravity field validation in Australia using a German digital astronomical camera
Curtin University of Technology	University of Goettingen	Missing Girls: Understanding the Causes
Curtin University of Technology	University of Duisburg-Essen	Enhancing privacy preserving record linkage (PPRL) methods for large scale operational settings
Curtin University of Technology	University of Ulm	Optical sensing for robotic laser surgery
Curtin University of Technology	Free University Berlin	Environmental reconstruction of climate variability and human impacts on reef systems in Miri-Sibuti Marine Park, Borneo, Malaysia
Flinders University	University of Potsdam	German anthropological legacies in Australia
Griffith University	University of Goettingen	Plant species regulate belowground carbon dynamics and microbial functions in grassland soils
James Cook University	Bayreuth University	Eco-evolutionary dynamics in the invasive ant <i>Anoplolepis gracilipes</i> : the role of colony fragmentation and subsequent differentiation in population regulation
Macquarie University	Max Planck Institute for Astronomy	Bringing Cosmic Fossils to Life: Uncovering the History of Galaxy Forma; on with MUSE
Monash University	Technical University Munich	Ultrafast charge dynamics in light-harvesting materials
Monash University	Technical University Berlin	Modelling coherent structures in free and wall-bounded shear flows
Monash University	Mainz University	Microstructure and crystallographic preferred orientation evolution in deformed ice containing dispersed minerals with applications to quartz-rich rocks

PROJECTS FUNDED 2017-18

Monash University	University of Tuebingen	Characterisation of novel glycopeptide antibiotic biosyntheses pathways
Monash University	Heidelberg University	Polarons in a Bose-Einstein condensate
Monash University	Centre for Organismal Studies Heidelberg	Making and shaping a vertebrate brain: Defining the cellular and genetic drivers of brain evolution
Murdoch University	University of Oldenburg	Control strategies to maximize the photovoltaic hosting capacity in remote diesel networks using sky camera based short-term solar forecasting techniques
Queensland University of Technology	University of Magdeburg	Design and development of self expanding breast implants and of corresponding delivery systems and image guidance for minimally invasive breast reconstructive surgery
Queensland University of Technology	University of Giessen	High proton conducting organic field effect transistors
Queensland University of Technology	Technical University Munich	Optimising protocols for resecting eloquent cortex brain tumours
Queensland University of Technology	University of Duisburg-Essen	Emergent Music Engagement Practices via Sound Cloud
RMIT University	Defence Force University Munich	Improved characterisation of high enthalpy CO ₂ flows by joint numerical and experimental investigations
Swinburne University of Technology	Duisburg-Essen University	Decentralized multi-agent demand side management of smart micro-grids with electric vehicle coordination
The Australian National University	Technical University Munich	Ultrafast charge dynamics in light-harvesting materials
The Australian National University	Technical University Berlin	Modelling coherent structures in free and wall-bounded shear flows
The Australian National University	Laser Centre Hannover	Enhanced non-linear response of hybrid nanostructures
The Australian National University	University of Cologne	SO-CHARMING: SOLving CHALLENGing Radionuclide Measurements for INterstellar and Geological applications
The Australian National University	Mainz University	Optimizing the creation of new superheavy elements
The Australian National University	GSI Helmholtz Centre, Darmstadt	Discovery and characterisation of long-lived states in exotic, short-lived nuclei

PROJECTS FUNDED 2017-18

The Australian National University	Bielefeld University	Socialbots as political actors? Autonomous communication technologies as tools and objects for digital sociology
The Australian National University	Jena University	Nonlinear and tunable dielectric metasurfaces
The University of Melbourne	University Erlangen Nuremberg	Assessment of vascularisation potential of 3D Bioglass scaffolds for tissue engineering of large bone defects using a mechanobiological approach
The University of Melbourne	Leipzig University	Engineering single atoms for quantum technologies
The University of Melbourne	University of Hohenheim	Exploring the genetic diversity of <i>Echinococcus granulosus</i> at the wildlife/livestock interphase
The University of Melbourne	Ulm University	Controlling molecular components in the construction of materials for energy storage
The University of Melbourne	University of Applied Sciences Wuerzburg Schweinfurt	MWD-Song (Wuerzburg-Melbourne Dementia Songwriting Project)
The University of Queensland	Aachen University of Applied Sciences	Hydrodynamics of stepped spillways: energy dissipation and reaeration performances
The University of Queensland	Potsdam University	Resolving questions about continental convergence using the double and triple dating method
The University of Queensland	University of Tuebingen	Understanding functional and metabolic brain connectivity in mice
The University of Western Australia	University of Applied Sciences Mannheim	Towards zero-energy sensing systems for building monitoring
The University of Adelaide	Technical University of Munich	Multi-target tracking in crowd scenes
The University of Adelaide	University Erlangen-Nuremberg	Understanding job creation: the role of firm age and job duration
The University of Adelaide	Leibniz Institute of Photonic Technology	Rare earth doped glass fibres for radiation dosimetry. Acronym: "REALITY"
The University of Adelaide	Trier University	Conservation of marine living resources in the polar regions
The University of New England	Leipzig University	Understanding the role of finance in agriculture

PROJECTS FUNDED 2017-18

UNSW Sydney	University of Erlangen-Nuremberg	Advanced biomechanics technology: development and application to muscle speed performance mutations
UNSW Sydney	Technical University Braunschweig	Logistic impact of urban production
UNSW Sydney	Technical University Munich	Robust detection and prediction of coherent structures in geophysical, physical, and chemical systems
UNSW Sydney	Bauhaus University Weimar	Safety assessment of industrial facilities based on hybrid models FEMSBFEM
UNSW Sydney	University of Erlangen-Nuremberg	Cytomegalovirus infection during pregnancy and transplantation: viral regulators that reprogram cellular signalling pathways
UNSW Sydney	University of Magdeburg	Identification of solutions of interest to aid evolutionary multiobjective optimization and decision-making
UNSW Sydney	Freiburg University	Strategic reasoning and planning for general game-playing robot
UNSW Sydney	University of Siegen	How to predict extremes when events occur in bursts
The University of Newcastle	Freiburg University	Intelligent dictionary generation for financial news analysis
The University of Newcastle	German Aerospace Centre, Institute of Communications and Navigation	Ultra-low latency communication strategies for machine-to-machine communications
University of South Australia	Freiburg University	3D bioprinting of bio functional hydrogels and tissue constructs
University of South Australia	The Max Planck Institute for Medical Research, Stuttgart/Heidelberg	Windows into cells: Engineering vertically aligned nanowire electrode arrays that allow intracellular electrical recordings
University of Southern Queensland	University of Stuttgart	Spacecraft re-entry break-up
The University of Sydney	GFZ Potsdam	Linking continental breakup dynamics to climate changes
The University of Sydney	Technical University Dresden	An Analytical method for X-ray tracking of contacts between rough sand particles

PROJECTS FUNDED 2017-18

The University of Sydney	Stuttgart University	Modelling the next generation of internal combustion engines
The University of Sydney	University of Heidelberg	RECO - Relativistic Effects in Cosmological Observers
The University of Sydney	University of Duisburg-Essen	Social media use in extreme events: evaluating the trustworthiness of the source of user-generated content
University of Tasmania	Max Planck Institute for Radioastronomy	The scale and structure of the Milky Way
University of Tasmania	University of Bonn	Effect of geocentre motion on the Antarctic ice mass balance
University of Technology, Sydney	Saarland University	Mental fatigue in football - influencing factors and interventions
University of Technology, Sydney	University of Bremen	Novel purification strategies for materials fabricated by electron-induced deposition
University of Wollongong	RWTH Aachen University	Nucleation in peritectic and reverse eutectoid transformations: an experimental and computational investigation
University of Wollongong	Heidelberg University	Gold-catalysed reactions of strained molecules
Victoria University	University of Konstanz	A comparative study of writing in English as an additional language in Australian and German universities
Western Sydney University	Leuphana University	Between logistics and migration: Duisburg and the New Silk Road
Western Sydney University	Duesseldorf University	The noisy ear; the influence of background noise on day-to-day listening
Western Sydney University	Harz University of Applied Sciences	Deep conceptors for temporal data mining
Western Sydney University	Max Planck Institute for Biogeochemistry	Data-model integration for understanding nitrogen and phosphorus limitations to future forests

PROJECTS FUNDED 2016-17

AUSTRALIAN UNIVERSITY PARTNER	GERMAN UNIVERSITY PARTNER	PROJECT TITLE
The Australian National University	Heidelberg University	Harnessing technology to reduce the burden of eating disorders
The Australian National University	Free University Berlin	Political careers in federal countries: methodological challenges
The Australian National University	Leipzig University	Advancing data integration: Privacy and semantics for record linkage
The Australian National University	Helmholtz Centre for Heavy Ion Research	Development of Si compatible nanopore membrane technologies
The Australian National University	Jena University	Integrated nonlinear circuits for broadband quantum photonics
Charles Darwin University	University of Frankfurt	Landscapes of Democracy
Charles Sturt University	University Clinic, Düsseldorf	PGRMC1-INTERAKTIONSPARTNER/-interacting proteins
Curtin University of Technology	Helmholtz Centre, Geesthacht	Development of complex hydride systems for high press
Curtin University of Technology	Bielefeld University	Pulsar astrophysics with next-generation radio astronomy facilities
Deakin University	Stuttgart University	Global assessment of children's motor competence
Deakin University	RWTH Aachen University	Enhanced properties of TWIP steels by asymmetric rolling
Edith Cowan University	Helmholtz Centre Dresden Rossendorf	CodaBlockCoEstimation
Edith Cowan University	University for Music and Theatre, Hamburg	Graphic music notation in networked performance environments
Federation University Australia	Technical University, Munich	Choking under pressure: Interventions and mechanisms
Flinders University	Leibniz-Institute of Freshwater Ecology and Inland Fisheries	Groundwater-surface water interactions in metropolitan areas
Griffith University	Bremen University	The role of sialic acids in pathological cell communications
James Cook University	Cologne University	Creativity in language: secret codes, special styles and linguistic taboos

PROJECTS FUNDED 2016-17

Macquarie University	Berlin-Brandenburg Academy of Sciences	On expedition: Max Weidenbach's diary and drawings (1842-45)
Macquarie University	Kiel University	From space to the deep earth
Macquarie University	Jena University	Spatial mode selective photonic devices for advanced fibre optic systems
Monash University	Leibniz Institute for Solid State and Materials Research, Dresden	Towards tailored acoustofluidics for the mass market
Monash University	Max Planck Institute for Infection Biology	In vivo studies of neutrophil extracellular trap function in infection
Monash University	Münster University	Sperm tail development and function
Monash University	Bergische University, Wuppertal	The First World War in Australian and German dramatic literature
Monash University	Technical University, Chemnitz	Bismuth-based antimicrobial polymers and coatings
Monash University	University of Munich	Detecting and monitoring events using uncertain geo-textual data
Monash University	Constance University	Division of labour and collective homeostasis in dynamic environments
Monash University	Stuttgart University	Fitness landscape characterisation for architecture optimisation
Monash University	Max Planck Institute for Astrophysics	Next generation stellar models: Combining theory & observations
Monash University	Max Planck Institute for Colloids and Interfaces	The cellular control of mineral heterogeneity in bone
Murdoch University	Lepzig University	Seeing without awareness
Murdoch University	University of Erlangen-Nuremberg	Confinement and adsorption of complex fluids in biology and materials
Queensland University of Technology	Stuttgart University	An integrated simulation framework to predict internal dynamics of the human spine
Queensland University of Technology	Cologne University	Developing a global typology of hub airport landside developments
Queensland University of Technology	Technical University, Munich	Analysis of anterior knee pain following total knee replacement
Queensland University of Technology	Humboldt University, Berlin	The foundations of alignments of process models

PROJECTS FUNDED 2016-17

RMIT University	University of Erlangen-Nuremberg	Signaling-biotechnology. Inflammation in brain disease
RMIT University	Straubing Center of Science	Developing novel reliable low cost HIV prognostics
Southern Cross University	Marburg University	Irregular flow of female migrants: an interdisciplinary and cross-country study
Swinburne University of Technology	Max Planck Institute for Radio Astronomy	Pulsar hunting with fast folding algorithms
The University of Adelaide	RWTH Aachen	Developing design tools for complex thermo-chemical processes
The University of Adelaide	Freiburg University	Genetic control of germline initiation in flowering plants
The University of Melbourne	Technical University, Freiberg	Filtration and separation properties of complex suspensions
The University of Melbourne	Freiburg University	Novel high-density hybrid electrodes for neural prosthetics
The University of Melbourne	Leibniz University Hannover	Social cars meet social travellers
The University of Melbourne	Würzburg University	A potential analgesic target in a novel chronic pain pathway
The University of Melbourne	Technical University, Munich	Impact of new Alzheimer's drugs on essential neuronal proteins
The University of Melbourne	University of Munich	Pragmatics of address in the L2 classroom in Germany and Australia
The University of Melbourne	Duisburg-Essen University	Learning how to teach mathematics with technology (Le T-M)
The University of Melbourne	University of Hamburg	Neural processes underlying extraverted behaviour
The University of Melbourne	Leuphana University, Lüneburg	Social-ecological resilience and sustainability governance
The University of Melbourne	University of Munich	Can an individual remain private among a sea of public users?
The University of Melbourne	Constance University	Mapping ultrafast energy relaxation in semiconductor nanocrystals
The University of Melbourne	Max Planck Institute for Informatics	Rapid deployment of named entity recognisers for novel domain
The University of Melbourne	European Molecular Biology Laboratory, Heidelberg	Spatial lipidomics and bioinformatics

PROJECTS FUNDED 2016-17

The University of Melbourne	Max-Planck Institute	Understanding cell wall synthesis of plant roots
The University of Melbourne	Technical University, Munich	Micrometeorology and fire danger in complex terrain
The University of Newcastle	Leipzig University	Effects of faulty relevance filtering on control of attentional processes
The University of Western Australia	Bochum University	Investigating surface phenomena near fluid mixture dew points
The University of Western Australia	Bonn University	Galaxy formation with a variable stellar initial mass function
The University of Western Australia	Leibniz Institute of Plant Genetics and Crop Plant Research	Prediction of restorer of fertility genes (rf) in genomic sequence data
University of Canberra	Stuttgart University	Understanding and evaluating deliberative systems
University of Canberra	Cologne University	Past environmental changes in the Sub-Antarctic
The University of New England	Bonn University	Chain failure and chain goods in sustainable food value chains
The University of New England	Tübingen University	On Bartnik's quasi-local mass functional
The University of New England	Free University, Berlin	Managing fibre intake in laying hens
The University of New England	Jülich Research Centre	Phosphorus forms, associations and availability in subsoils
The University of Queensland	Helmholtz Centre Geesthacht	Development of high performance Mg alloys via a novel approach
The University of Queensland	Technical University, Munich	Intracellular regulation of N ₂ O production from wastewater treatment
The University of Queensland	Humboldt University, Berlin	What is the "Islamic State"? Understanding the network-state threat to open societies
The University of Queensland	Max Planck Institute for Chemical Ecology	Novel host use by a generalist pest: cotton bollworms and cabbage
University of South Australia	Max Planck Institute for Intelligent Systems	Engineering silicon nanowires for new-generation vascular implants
University of South Australia	Philipps University, Marburg	Probing targeted drug delivery with porous silicon nanodiscs
The University of Sydney	Frankfurt University	Measuring neural information synthesis and its impairment

PROJECTS FUNDED 2016-17

The University of Sydney	University of Erlangen-Nuremberg	Physical mechanisms in glioblastoma cancer cell invasion
The University of Sydney	Jena University	Structurally induced scattering of light by light
The University of Sydney	Cologne University	Structured measurements for quantum and classical compressed sensing
The University of Sydney	Julius Kühn-Institute	Plant root traits and function affected by management and climate
University of Tasmania	Free University, Berlin	Identifying financial market contagion in real-time
University of Tasmania	Max Planck Institute for Comparative Public Law and International Law	Representation of future generations and international climate litigation
University of Technology, Sydney	Regensburg University	Expected (financial) loss over lifetime
University of Technology, Sydney	Münster University	Novel analytical protocols of characterisation of bio-metal exposure
University of the Sunshine Coast	German Sport University, Cologne	Exercise and the progression of dementia: role of brain blood flow
University of the Sunshine Coast	Würzburg University	Does bee health depend on plant diversity in the landscape?
Western Sydney University	Max Planck Institute for Biophysical Chemistry	Critical roles of lipids in the late steps of Ca ²⁺ -triggered exocytosis
Western Sydney University	Tübingen University	Processing prosody across languages, varieties and nativeness
Western Sydney University	Humboldt University, Berlin	Steady vision: the role of discontinuity and disruption
Western Sydney University	Helmholtz Centre for Ocean Research, Kiel	Multiple stressor effects on mussel larvae
University of Wollongong	Technical University, Munich	Anaerobic co-digestion of wastewater sludge and organic wastes
University of Wollongong	Technical University, Kaiserslautern	Model predictive control in building and experimental validation
UNSW Sydney	Technical University, Munich	Modelling contaminant removal during wastewater treatment
UNSW Sydney	Freiburg University	Modulation doping of Si/SiO ₂ nanostructures

PROJECTS FUNDED 2016-17

UNSW Sydney	Centre of Applied Space Technology and Microgravity	RAPID3
UNSW Sydney	University of Erlangen-Nuremberg	Mechano-biotechnology of hypertrophic signalling in the heart
UNSW Sydney	Free University, Berlin	WWI remembrance in interdisciplinary, transnational comparison
UNSW Sydney	Peace Research Institute, Frankfurt	R2P, Variable effects of norm contestations: A preliminary study
UNSW Sydney	Free University, Berlin	Decadal predictability of temperature and precipitation extremes
UNSW Sydney	Münster University of Applied Sciences	Identifying carbon magnetism in graphene with synchrotron radiation
UNSW Sydney	Technical University, Munich	Unified framework for medical image analysis for prostate cancer
Victoria University	Osnabrück University	Muslim community youth work as a means to prevent and redress radicalisation



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