

# 2025 Completions - Faculty of Science

## **Dr. Giulia Catherine Cinquegrana**

(Specialisation: Astronomy) (Conferred: 22-Jan-2025)

The Edge of Enrichment: Contributions of Very Metal-Rich Stars to the Origin of the Elements

## **Dr. Iain MacDougall Hammond**

(Specialisation: Astronomy) (Conferred: 22-Jan-2025)

Direct Imaging of Protoplanets

## **Dr. Jia Jin Hiu**

(Specialisation: Pharmacology and Toxicology) (Conferred: 22-Jan-2025)

Discovery of Aptamers Targeting Epitopes of Cobra Venom Cytotoxin as Novel Antitoxins Using Computational and Conventional SELEX

## **Dr. Jiayi Lin**

(Specialisation: Genetics) (Conferred: 22-Jan-2025)

Defining Dietary Treatments for Human Sulfur-containing Amino Acid Disorders Using *Drosophila melanogaster*

## **Dr. Nazmul Hasan Muzahid**

(Specialisation: Microbiology) (Conferred: 22-Jan-2025)

Genomics and Virulence of *Acinetobacter baumannii* and *Acinetobacter colistiniresistens* Isolated from Community and Hospital in Segamat, Malaysia: An Epidemiological Study

## **Dr. Hamish Albert Taylor**

(Specialisation: Physics) (Conferred: 22-Jan-2025)

Faraday-enhanced Ramsey Interferometry in Ultracold Atoms

## **Dr. Peter Halat**

(Specialisation: Chemistry) (Conferred: 29-Jan-2025)

Development and application of theoretical techniques towards large-scale calculations and bulk simulations of ionic liquids

## **Dr. Riley Dylan Leslie Henderson**

(Specialisation: Physics) (Conferred: 29-Jan-2025)

New insights on the B anomalies: an in-depth analysis of  $b \rightarrow sl+l-$  decays at LHCb

## **Dr. Tahnee Frances Burke**

(Specialisation: Geochemistry) (Conferred: 05-Feb-2025)

Volcanic Systems and Mantle Reservoirs of Mars: Insights from Martian Meteorites

## **Angus Silas Harding**

(Specialisation: Applied and computational mathematics) (Conferred: 05-Feb-2025)

Cost-Effective Biomarker Panels for Aging Clinical Trials

## **Dr. Umama Shahid**

(Specialisation: Molecular Biology and Molecular Genetics) (Conferred: 05-Feb-2025)

Investigating antibiotic-responsive riboswitches in *Klebsiella pneumoniae*

**Dr. Alexander Tritt**

(Specialisation: Physics) (Conferred: 05-Feb-2025)

Efficiently estimating waveforms on a compressive ultracold atom sensor

**Dr. Sophie Ellis**

(Specialisation: Chemistry) (Conferred: 19-Feb-2025)

Advancing Sustainable Polymer Synthesis: Exploring Heterogenous Catalytic Flow Reactors and Support Materials

**Dr. Malinda Prabhath Madhusankha Garusinghe Devage**

(Specialisation: Food Science and Technology) (Conferred: 19-Feb-2025)

Development and Characterization of Encapsulated Spice Oleoresin Powders by Spray Drying

**Dr. Mohammad Mostafa Kamal**

(Specialisation: Chemistry) (Conferred: 19-Feb-2025)

Novel boron compounds in (in)organic synthesis

**Dr. Bailey Matthew Sykes**

(Specialisation: Astrophysics) (Conferred: 19-Feb-2025)

Simulations of Core-Collapse Supernovae: Studies of Black Hole Formation and Magnetohydrodynamical Effects

**Dr. Chamodini Nisansala Thilakarathna**

(Specialisation: Food Science and Technology) (Conferred: 19-Feb-2025)

Extraction of Mahua (*Madhuca longifolia*) Seed Oil and Its Modification for Potential Application as Cocoa Butter Equivalent

**Dr. Bao Chi Wong**

(Specialisation: Molecular Biology and Molecular Genetics) (Conferred: 19-Feb-2025)

Pangenome, Transcriptome and Transposon Mutagenesis Studies in Pathogenesis and Virulence Factors of *Shigella Sonnei* Associated With *Caenorhabditis Elegans* Infection

**Dr. Xi Khai Wong**

(Specialisation: Medical science) (Conferred: 19-Feb-2025)

Nutmeg-Derived Natural Product Hybrids: Synthesis and Investigations of Their Antibacterial Activity and Mechanism of Action

**Dr. Annabel Jayne Bowden**

(Specialisation: Atmospheric sciences) (Conferred: 05-Mar-2025)

Characteristics and environments of radar-derived heavy rainfall events in Australia

**Lucinda Anne Palmer**

(Specialisation: Atmospheric sciences) (Conferred: 05-Mar-2025)

The Controls on the Thermal Structure of the Tropical Troposphere and Their Representation in CMIP6

**Dr. Abigail Helen Robinson**

(Specialisation: Ecology and evolutionary biology) (Conferred: 05-Mar-2025)

Benefits of helpers in a cooperative breeder with high extra-group paternity: an experiment

**Dr. Tiffany Mei Quan Tan**

(Specialisation: Biomedical science) (Conferred: 05-Mar-2025)

Analysing Proteome Changes and Interactome Network to Elucidate the Cytotoxic Pathways of Cobra Venom Cytotoxin Exposure through Systems Biology Approach

**Dr. Natarsha Lauren Babic**

(Specialisation: Ecology) (Conferred: 19-Mar-2025)

The physiological impacts of anthropogenically altered landscapes on a large omnivorous Carnivoran, the brown bear (*Ursus arctos*)

**Dr. Sophie Annabelle Crouch**

(Specialisation: Chemistry) (Conferred: 19-Mar-2025)

Polydopamine in Ionic Liquids: Bridging Experiment and Computation for Structural Elucidation

**Dr. Rhiannon Victoria Eastment**

(Specialisation: Ecology and evolutionary biology) (Conferred: 19-Mar-2025)

The evolution of parental care: Genomic and ecological perspectives on mouthbrooding and viviparity

**Dr. QINUO HUANG**

(Specialisation: Atmospheric sciences) (Conferred: 19-Mar-2025)

The Role of the Boundary Layer and the Associated Physical Processes During Hot Days and Heatwaves in Southeastern Australia

**Dr. Mary Hui Yee Ling**

(Specialisation: Materials chemistry) (Conferred: 19-Mar-2025)

Development of novel biodegradable membrane from oil palm biomass for daily used materials

**Dr. Chenhui Jin**

(Specialisation: Atmospheric sciences) (Conferred: 02-Apr-2025)

Weather systems and their roles in rainfall variability and extremes in Australia

**Dr. Aurelie Sarah Mok Tsze Chung**

(Specialisation: Natural Product Chemistry) (Conferred: 02-Apr-2025)

Isolation, purification and characterisation of an antimicrobial compound produced by *Burkholderia* sp. from Batu Timbang, Sabah, Malaysia

**Dr. Allimalar Sathiaseelan**

(Specialisation: Science) (Conferred: 02-Apr-2025)

Antibiofilm properties of anthocyanin fraction from blue pea flower (*Clitoria ternatea*) and betacyanin fraction from red dragon fruit (*Hylocereus polyrhizus*) against dental plaque formations

**Dr. Robert Ramirez Garcia**

(Specialisation: Genetics) (Conferred: 09-Apr-2025)

Virus-free virus-like P4-EKORhE transducing particles and n-kill antimicrobial gene therapeutics

**Dr. Keith Chor Hei Chan**

(Specialisation: Mathematics) (Conferred: 21-Apr-2025)

Spectral Multigrid for Forced Internal Solitary Wave Computations

**Dr. Lachlan Francis Gaudin**

(Specialisation: Chemistry) (Conferred: 21-Apr-2025)

Electrochemical Imaging of Noble Metal Electrocatalysts

**Dr. Cameron Ross Henderson**

(Specialisation: Atmospheric sciences) (Conferred: 21-Apr-2025)

Heatwaves and Heavy Rainfall in Southeastern Australia during the Austral Summer

**Dr. Yit Kheng Goh**

(Specialisation: Applied Microbiology) (Conferred: 30-Apr-2025)

Investigating biotic and abiotic components in Blenheim soil series (Typic Quartzipsamment) responsible for suppressing Basal Stem Rot (BSR) incidence in oil palm

**Umme Kawser**

(Specialisation: Tropical Environmental Biology) (Conferred: 30-Apr-2025)

Remote Sensing-Based Assessment of the Impacts of Dams on Thermal Dynamics in Tropical Rivers of Malaysia

**Dr. Thomas Liam Maunder**

(Specialisation: Astrophysics) (Conferred: 30-Apr-2025)

Multi-Dimensional Radiative Transfer Calculations for Asymmetric Stripped-Envelope Supernovae

**Dr. Jaclyn Elise Harris**

(Specialisation: Ecology) (Conferred: 14-May-2025)

The Management and Indirect Impacts of Fire Regimes

**Dr. Ying Ying How**

(Specialisation: Physics) (Conferred: 14-May-2025)

Quantitative single-exposure x-ray dark-field imaging: a single-grid approach

**Dr. Muhammad Awais Khan**

(Specialisation: Mathematics) (Conferred: 14-May-2025)

Numerical analysis of stochastic Stefan problem using gradient discretisation method

**Dr. Julian Ceddia**

(Specialisation: Physics) (Conferred: 30-May-2025)

Engineering and Control of Two-Dimensional Molecular Nanoarchitectures for Future Electronics

**Dr. Joshua Nicholas Johnstone**

(Specialisation: Genetics) (Conferred: 30-May-2025)

The role of GCN2 in somatic maintenance and ageing

**Dr. Tian Wen**

(Specialisation: Chemistry) (Conferred: 30-May-2025)

Diarylethene-Based Coordination Polymers for Photo/Electroactive Applications

**Dr. Neil Joseph Dowling**

(Specialisation: Physics) (Conferred: 15-Jun-2025)

Multi-time Structures from Many-body Dynamics

**Dr. Michael James Gill**

(Specialisation: Mathematics) (Conferred: 15-Jun-2025)

Enumeration and Isomorphism for 1-Factorisations and Latin squares

**Dr. Wei Li**

(Specialisation: Applied and computational mathematics) (Conferred: 15-Jun-2025)

Finite Element Interpolated Neural Networks for Forward and Inverse Problems

**Dr. Eric Douglas James Vandenburg**

(Specialisation: Geochemistry) (Conferred: 15-Jun-2025)

The formation of Archean lithotectonic blocks in non-plume environments: inferences on craton assembly and stabilization from the Pilbara Craton, Western Australia

**Dr. Maha Hamed K Alharbi**

(Specialisation: Microbiology) (Conferred: 25-Jun-2025)

The impact of ferrous iron on DNRA activity and microbial communities in sedimentary environments

**Dr. Tahereh Alinejadtabrizi**

(Specialisation: Atmospheric sciences) (Conferred: 09-Jul-2025)

Precipitation in Shallow Convection Over the Southern Ocean

**Dr. Zijun Chen**

(Specialisation: Pure mathematics) (Conferred: 09-Jul-2025)

Low-regularity local well-posedness for some dispersive equations

**Dr. Christine Shing Wei Law**

(Specialisation: Chemistry) (Conferred: 09-Jul-2025)

Design and Development of Choline Acetyltransferase Fluorescence Imaging Probes

**Dr. Jared Nathan Lush**

(Specialisation: Ecology and evolutionary biology) (Conferred: 09-Jul-2025)

Local adaptation in a warming world: implications of host heterogeneity on the spread of pathogens

**Dr. Rachel Maclean**

(Specialisation: Chemistry) (Conferred: 09-Jul-2025)

Developing Thiosemicarbazonato Technetium and Rhenium Radiopharmaceuticals for Nuclear Imaging and Therapy

**Dr. Yixiao Jiang**

(Specialisation: Chemistry) (Conferred: 23-Jul-2025)

Low Oxidation State s- and p-Block Compounds: Base Metals with Noble Intentions

**Dr. Jessica Macha**

(Specialisation: Earth sciences) (Conferred: 23-Jul-2025)

The El Nino-Southern Oscillation as a climatological driver of Antarctic Ice Sheet surface mass changes

**Dr. Saliha Saher**

(Specialisation: Chemistry) (Conferred: 23-Jul-2025)

Advanced materials for intermediate temperature thermal energy storage

**Dr. Emma Michelle Bennett**

(Specialisation: Ecology) (Conferred: 06-Aug-2025)

A Standardised Approach for Evaluating Detection Dogs Searching for Rare Species

**Dr. Tsung-Chi Chou**

(Specialisation: Environmental science) (Conferred: 06-Aug-2025)

Fire-affected forest structure and fire severity estimation using satellite-based and airborne LiDAR data and a Neural Network model

**Dr. Puspitaningsih Hall**

(Specialisation: Biogeochemistry) (Conferred: 06-Aug-2025)

Methane production in coastal permeable sediments

**Dr. Shon Kolomoisky**

(Specialisation: Chemistry) (Conferred: 06-Aug-2025)

Optical Properties of Metal/Semiconductor Nanoparticles and Assemblies Fabricated Through DNA Hybridisation

**Hern Liang Liew**

(Specialisation: Applied Microbiology) (Conferred: 06-Aug-2025)

Membrane permeabilization effects of cobra venom cytotoxin-derived peptide KK-12 against *Staphylococcus aureus*

**Dr. Yuxi Liu**

(Specialisation: Chemistry) (Conferred: 06-Aug-2025)

Flavylium-Containing Polymers: Synthesis, Self-Assembly and Multi-Stimuli Responsiveness

**Dr. Jia Jia Qian**

(Specialisation: Mathematics) (Conferred: 06-Aug-2025)

Polytopal methods for geometric partial differential equations

**Dr. Qian Wan**

(Specialisation: Mathematics) (Conferred: 06-Aug-2025)

Route Optimisation for Autonomous Agricultural Spraying Robots

**Dr. Kyria Wawryk**

(Specialisation: Applied and computational mathematics) (Conferred: 06-Aug-2025)

Adaptive Approximation Techniques for Computing the Reachable Sets of Ordinary Differential Inclusions

**Yee Chi Wong**

(Specialisation: Microbiology) (Conferred: 06-Aug-2025)

Characterizing the Gut Microbiota of Healthy Malaysians

**Dr. Xin Lin**

(Specialisation: Mathematics) (Conferred: 20-Aug-2025)

Information Sources, Investor Disagreement, and Asset Pricing

**Dr. Shidan Liu**

(Specialisation: Mathematics) (Conferred: 20-Aug-2025)

Robust superhedging duality of exotic multi-action options

**Dr. Ruben Amirthalingam**

(Specialisation: Applied Microbiology) (Conferred: 07-Sep-2025)

Biosynthesis of metal nanoparticles from kaffir lime leaves and its bioactivities

**Dr. Sulagna Chattopadhyay**

(Specialisation: Genetics) (Conferred: 07-Sep-2025)

Assessment of ANKRD1, ANKRD2 and LMOD2 as candidate genes for myopathies

**Dr. Georgia Radhika Lloyd**

(Specialisation: Botany) (Conferred: 07-Sep-2025)

Ma-rnabaka: ma-wurrrama kulu ma-wirrimalaru - The cycad: a tree of authority and of great spiritual power: an examination of Australian Cycas species

**Dr. Alicia Anne Quinn**

(Specialisation: Biology) (Conferred: 07-Sep-2025)

Controlling dhuririn biosynthesis: Transcriptional regulation of a cyanogenic glycoside in Sorghum

**Dr. Emmanuel William Callum Terzoudis-Lumsden**

(Specialisation: Physics) (Conferred: 07-Sep-2025)

Applications of the scattering matrix reconstructed from four dimensional scanning transmission electron microscopy

**Le Wei Wong**

(Specialisation: Biomedical science) (Conferred: 07-Sep-2025)

Analysis of urinary EVs for the development of AI-assisted application for prostate cancer detection

**Dr. Shijia Jin**

(Specialisation: Mathematics) (Conferred: 17-Sep-2025)

Macroscopic Market Making and Optimal Execution

**Dr. Elizabeth Kathryn Peach**

(Specialisation: Chemistry) (Conferred: 17-Sep-2025)

Enhancing zinc oxide nanoparticles for application in Sunscreen

**Dr. On Yu Hui**

(Specialisation: Mathematics) (Conferred: 06-Oct-2025)

Knots and links in Seifert fibred spaces

**Dr. Tammitage Danesh Shenal Perera**

(Specialisation: Applied chemistry) (Conferred: 06-Oct-2025)

Hydrophobic Modification of Mineral Particles Based on Cardanol Derivatives and Its RAFT Copolymers

**Dr. Liam Joel Watson**

(Specialisation: Physics) (Conferred: 06-Oct-2025)

Topological excitonic insulator monolayer WTe<sub>2</sub> and the negative compressibility surface of MoS<sub>2</sub>

**Dr. Jack Allsop**

(Specialisation: Mathematics) (Conferred: 15-Oct-2025)

Latin Subrectangles

**Dr. Boon Jen Lee**

(Specialisation: Food Science and Technology) (Conferred: 15-Oct-2025)

Encapsulation of bioactive compounds from calamansi waste by spray drying and its protective effect against oxidative stress in Lactobacillus spp