2019

GRADUATION CEREMONIES

THE UNIVERSITY OF ADELAIDE

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of ADELAIDE

CHANCELLOR'S *Welcome*

On behalf of the University of Adelaide may I offer sincere congratulations to you, our new graduates.

You have joined a distinguished community of University of Adelaide alumni that spans the globe.

As a graduate of the University of Adelaide you hold a degree that is recognised and valued around the world. Our graduates have gone on to be pioneers and leaders in many fields – from science, medicine and engineering, to law, the social sciences and the performing arts. They have won Nobel Prizes, distinguished themselves in politics and the arts, and helped to improve the lives and wellbeing of countless communities.

The University of Adelaide is committed to providing an inspiring university experience and producing talented and skilled graduates. I hope that your skills and the friendships that you have made will endure throughout your life.

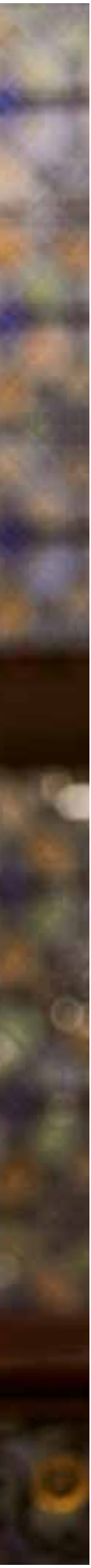
You should be proud today of your achievement in completing your studies, which is the first step on what I trust will be a satisfying and exciting career.

I would also take this opportunity, on behalf of the University, to thank those who have supported you and, in many cases, have made it possible for you to be here today.

You will always remember the University of Adelaide, and I hope you will consider it a significant part of your life, not just the past few years while studying, and not just today but forever. I encourage you to join our network of alumni and enjoy the benefits of a long association with your University.

My congratulations to you all.

Rear Admiral the Honourable Kevin Scarce
AC CSC RAN (Rtd)
Chancellor



Message from the VICE-CHANCELLOR AND PRESIDENT

Congratulations on graduating from one of Australia's leading universities.

This ceremony marks the culmination of years of study that now place you into lifelong membership of the University of Adelaide alumni – a group spread across all corners of the globe.

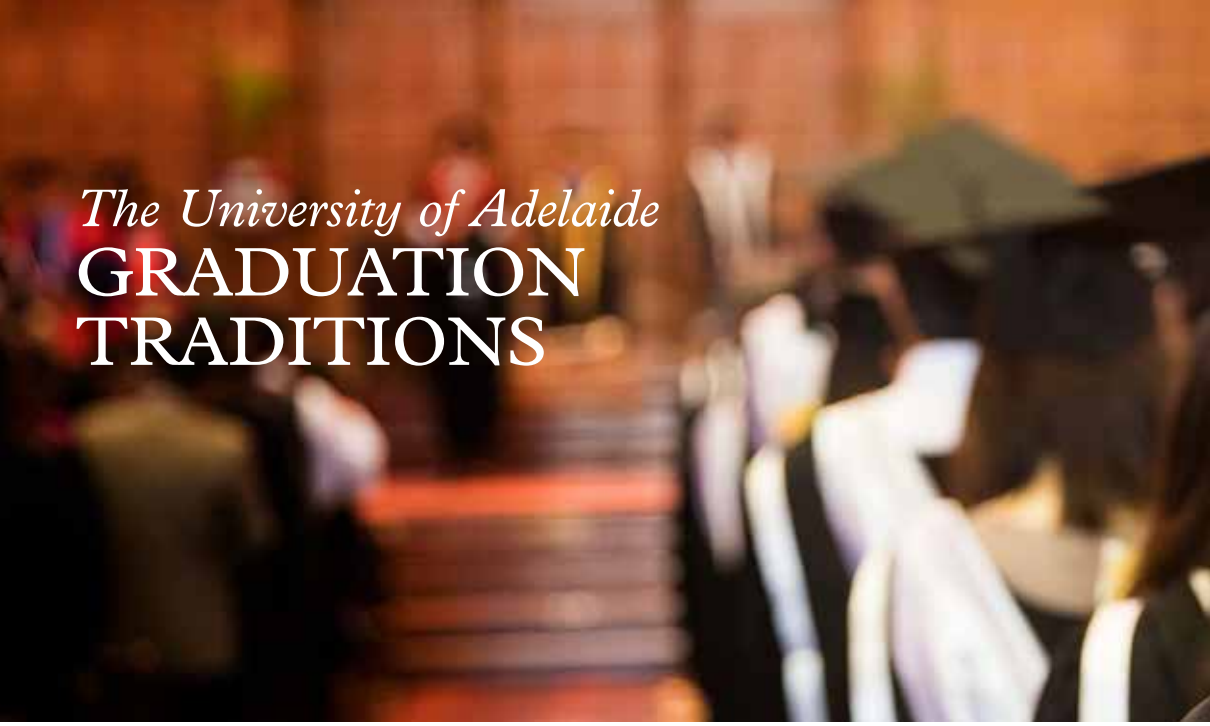
And you follow in the footsteps of extraordinary individuals, including some who have redefined the world as we know it, and many others who are changing their communities for the better each day. Your University of Adelaide degree will open doors to new, transformational opportunities.

Today is about celebrating your achievements with family, friends, members of staff and fellow graduates. I strongly encourage you to maintain those professional connections you have made here: many of them will stay with you for life.

Use your knowledge wisely, be bold and generous in the way you share ideas with others, and always be open to learning.

Well done: you go forward today with the warmest wishes of the University of Adelaide community.

Professor Peter Rathjen
AO, BSc (Hons) (Adel), DPhil (Oxon), Hon DLitt (Tas)
Vice-Chancellor and President



The University of Adelaide GRADUATION TRADITIONS

ACKNOWLEDGEMENT OF COUNTRY

Ngadlurlu Kaurna miyurna tampinthi. Parna yarta mathanya Wama Tarntanyaku.

University of Adelaide Kaurna yartangka yuwanthi – Tarntanyangga (North Terrace), Waitengga, Thebartonilla, Roseworthyngga kuma. (Lit. the University of Adelaide stands on Kaurna land in Adelaide (North Terrace, Waite, Thebarton and Roseworthy.)

We acknowledge the Kaurna people past and present, the original custodians of the Adelaide plains and the land on which the University of Adelaide campuses are built.

The University's two Reconciliation Statements, along with the Reconciliation Action Plan support the objectives and strategic directions of the renewed 2019 Tarrkarri Tirrka Aboriginal and Torres Strait Islander Strategy. Together, these statements document the University's ongoing commitment to Aboriginal and Torres Strait Islander empowerment and self-determination.

The University campuses are located on inscribed country and the land holds many stories, every feature in this landscape is imprinted with meaning and lore. North Terrace has always been a place of learning where ceremony and conference were hosted annually.

COAT OF ARMS

The University of Adelaide's coat of arms was granted to the University by the College of Arms, London, in 1925. It is the official symbol of the University and the stamp which ratifies every degree parchment bestowed by the University.

The crest or shield displays an open book and five stars; one of eight, two of seven, one of six and one of five points – representing the Southern Cross. A scroll containing the University's Latin motto sits directly below the shield; Sub Cruce Lumen, meaning 'The light (of learning) under the (Southern) Cross'.

BONYTHON HALL

Bonython Hall is the University of Adelaide's "great hall". It was built in the years of 1933-1936 using a generous donation of over £50,000 from renowned public benefactor Sir John Langdon Bonython.

Planned construction of Bonython Hall was surrounded in controversy. Colonel William Light, Surveyor-General for the City of Adelaide, had an original vision to extend Pulteney Street north towards North Adelaide. The Adelaide City Council was keen to see his plans carried out.

Following much debate, it was City Alderman and lawyer George McEwin who was able to convince the City Council of the University's master plan and evolving architectural beauty. Further, he pointed out that the City Council had no legal prerogative to construct roads on the private property of the University.

Consequently construction of the great hall began. This proved a critical juncture in the University's history - resulting in the University of Adelaide expanding to become one of the most picturesque campuses in the country today Today, Bonython Hall is home to all onshore graduation ceremonies and a number of official University events, including the annual Carols on Campus event in December.

ABOUT THE ORGAN

The organ in Bonython Hall was installed in 2002. Made in England to a tonal design by the leading Dutch firm Johannus Orgelbouw, it uses custom-built speakers to reproduce digital recordings of individual organ pipes with the acoustic qualities of a piped instrument. The four manual instrument is the largest of its type in Australia.

UNIVERSITY MACE

Thousands of years ago the Mace, a heavy club weighted at one end, was used as a blunt weapon in battle. In the sixteenth century the Mace came to be used more ceremonially – representing a symbol of protection of the King. Today, the Mace is celebrated as a symbol and warrant of office, particularly of royal or ecclesiastical office, and of institutions deriving authority from the Crown or Church.

The University of Adelaide Mace was designed by Mr I. Milward Grey of the School of Fine Arts, North Adelaide, and was made under his personal supervision by an Adelaide firm of silversmiths.

The Mace is 24 inches in length and is made of silver gilt throughout. Seventy-three ounces, just over 2kg, of metal was used in its manufacture. The Mace head forms an orb, representing the world, and features a book, a symbol of learning, and a design of gum leaves on matted ground. On either side of the orb, the University's Coat of Arms is featured along with the motto: *Sub Cruce Lumen*.

The University Mace was first carried by President of the Students Council, K H Boykett, at a Jubilee procession at St Peter's Cathedral in 1926, marking the 50th anniversary since classes first commenced.

The traditional role of the Mace Bearer in the University of Adelaide graduation ceremony is to protect the Chancellor, meaning the bearer of the Mace always precedes the Chancellor in the academic procession.

ACADEMIC DRESS

Academic dress, including the full-length robe, hood and classical headwear, dates back to the medieval 12th and 13th centuries in Europe when universities, as we know them today, were developing.

The regalia were originally worn daily by university scholars for reasons of warmth and to reflect their status in society. The sense of purpose and propriety evoked by formal academic dress has ensured the tradition has been preserved over the centuries.

In contemporary times, academic dress is largely reserved for graduation ceremonies and formal university events.

Gown

University of Adelaide graduates wear black gowns in the Cambridge style, with the exception of:

- Professional Doctorate and PhD candidates whose gowns are black and faced with scarlet
- Higher Doctorate and Doctor of the University candidates who wear scarlet gowns faced respectively with the colour of their discipline or ultramarine blue.

Hood

Professional Certificate and Sub-bachelor graduates do not wear a hood.

Other graduates wear a black hood that displays a colour representative of their discipline area, except that:

- Postgraduate coursework candidates wear a black hood lined in white
- Research masters wear a black hood lined in scarlet
- PhD, Higher Doctorate and Doctor of the University candidates wear a scarlet hood lined in scarlet.

Headwear

Graduates receiving a Professional Certificate, Sub-bachelor Certificate or Diploma, Bachelor, Honours, Graduate Certificate or Diploma or Masters qualification wear a black trencher cap or mortarboard.

Graduates receiving a Professional Doctorate, PhD, Higher Doctorate, Doctor of Medicine or a Doctor of the University wear a bonnet of black velvet.

Creative Arts and Architecture
Cendre Green

Business
Helvetia Blue

Engineering and related technologies
True Purple

Health Sciences
Eosin Pink

Natural and Physical Sciences
Primuline Yellow

Society, Culture and Education
Pale Violet Grey

Information for GUESTS

The following information is provided to ensure the comfort, safety and enjoyment of everyone attending the ceremony. Please take a moment to read before the ceremony commences.

GENERAL

Toilets are located at the entrance to the hall, downstairs from the foyer.

A water cooler for your use can also be found in the foyer.

Please supervise babies and young children at all times. If they are disturbing other guests, please take the opportunity to relocate to the foyer.

Please switch off or silence mobile phones for the duration of the ceremony.

APPLAUSE

Guests are invited to applaud each graduate as they are presented on stage.

PHOTOGRAPHY

Guests are welcome to take photographs during the ceremony. However, you are requested not to disrupt the ceremony by leaving your seat or using flash photography.

Professional photographers will take a photograph of each graduate as they are presented on stage. These photographs will be available immediately after the ceremony from GFP Graduations, who will be temporarily located on the Goodman Lawns.

Alternatively graduates can order their stage photos online after the ceremony.

SAFETY AND EMERGENCY

For safety reasons guests may not enter the galleries upstairs or sit on the steps in the balcony area.

Emergency exits are marked on the plan below. Please note your nearest exit.

The emergency assembly point is on Goodman Lawns, west of the hall.

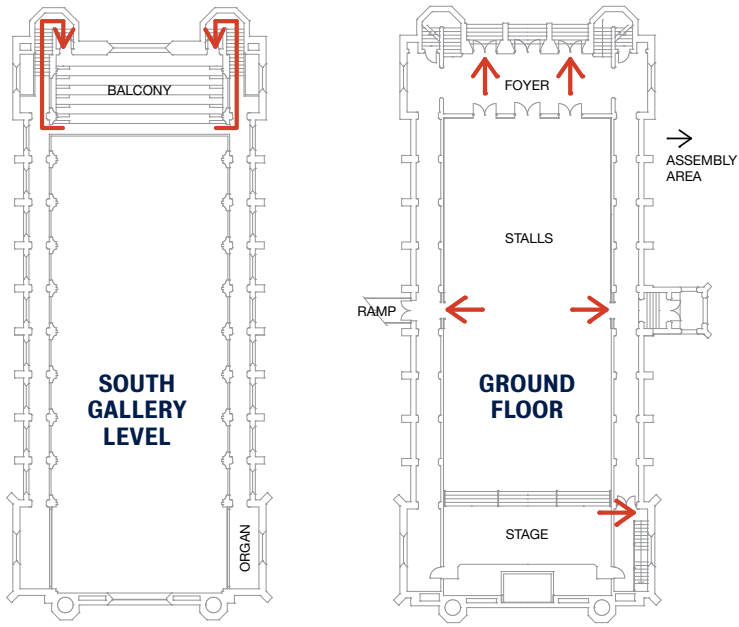
If it becomes necessary to evacuate Bonython Hall, an announcement will be made. Follow the directions of the Ushers, exit the hall and move to the assembly point. Guests in wheelchairs should exit the hall via the eastern entrance.

ADDITIONAL INFORMATION

Student Ushers in white shirts can provide further information and assistance.

The ceremony will last around 70 minutes.

Bonython Hall emergency exits



Order of PROCEEDINGS

Before the ceremony, music will be played on the Bonython Hall Organ by Haowei Yang (Student in the Elder Conservatorium of Music).

JS Bach: *Schmücke dich, o liebe Seele* and L Vierne: *Carillon de Westminster*

THE ACADEMIC PROCESSION *(please stand)* will enter Bonython Hall

Trumpet Tune and Air by Henry Purcell, arr. Howarth,
performed by the Elder Conservatorium Brass Ensemble.

- Marshals
- Doctorates in all Faculties/Schools
- Heads of Affiliated Colleges
- Academic and Graduate Staff
- Executive Deans and Heads of Schools
- Senior University Officials
- The Valedictorian
- The Orator
- The Vice-Chancellor
- The Mace Bearer
- The Chancellor

THE NATIONAL ANTHEM
to be sung by Charlotte Kelso DipA, BA/BMus(Clas)

Australians all let us rejoice, For we are young and free;
We've golden soil and wealth for toil, Our home is girt by sea;
Our land abounds in nature's gifts Of beauty rich and rare;
In history's page, let every stage Advance Australia Fair.
In joyful strains then let us sing, Advance Australia Fair.

Guests to be seated

WELCOME BY THE CHANCELLOR
Rear Admiral the Honourable Kevin Scarce AC CSC RAN (Rtd)

THE OCCASIONAL ADDRESS to be given by
The Honourable Patricia Lynne White

THE MACE BEARER THANKS THE ORATOR
Dr Peter Mathews will thank the orator

CERTIFICATION STATEMENT by the Vice-Chancellor
Professor Peter Rathjen AO BSc (Hons) (Adel),
DPhil (Oxon), Hon DLitt (Tas)

PRESENTATION OF AWARDS by Faculty/School

VALEDICTORY ADDRESS
given by Mr Mohammad Mahdi Kazemi Moghaddam

CLOSING REMARKS given by the
Rear Admiral the Honourable Kevin Scarce AC CSC RAN (Rtd)

THE ACADEMIC RECESSION *(please stand)* The academy will leave Bonython Hall in reverse order to that of entry, followed by the new graduates. During the recession, the organist will play CM Widor: *Toccata from Symphony No. 10*

Guests are requested to remain standing while the procession is leaving Bonython Hall.

Presentation of AWARDS

Conferral of the

HONORARY DEGREE

Presented by the Vice-Chancellor and President Professor Peter Rathjen AO BSc (Hons) (Adel), DPhil (Oxon), Hon DLitt (Tas)

Doctor of the University (honoris causa)

The Honourable Patricia Lynne White

Faculty of

ENGINEERING, COMPUTER AND MATHEMATICAL SCIENCES

Presented by the Executive Dean of the Faculty of Engineering, Computer and Mathematical Sciences, Professor Anton Middelberg BE (Hons), PhD, MA, FIChemE, FIEAust, FTSE

Degree of Bachelor of Mathematical Sciences

James Herriman ... Statistics and Applied Mathematics

Maxwell Mussared ... Pure Mathematics and Statistics

Degree of Bachelor of Mathematical Sciences (Advanced)

Vince Laurendi

Degree of Bachelor of Mathematical and Computer Sciences

Jeremy Joshua Abbot ..... Computer Science

Thomas Ralph Barone ..... Computer Science

Patrick Dunn-Lawless ..... Computer Science

Thomas Joseph Focareta ..... Computer Science

Goh Yee Theng ..... Applied Mathematics

Xuehan Guo ..... Statistics

Chongxin Ji ..... Computer Science

Joseph Lawrie

Oliver James Lountain ..... Statistics and Pure Mathematics

Maizura Binti Mazuin ..... Applied Mathematics

Liam Travis Mellor ..... Computer Science

Ashley Edward Mitchell ..... Statistics

James Anthony Schoff ..... Statistics and Applied Mathematics

Thomas Suebwicha ..... Computer Science

Joshua James Yates ..... Statistics

Benjamin Andrew Zuill

Degree of Bachelor of Computer Science

Byeongjun An

Rui Chen

Yefeng Chen

Yuxi Chen

Zhi Yang Chye

Fengming Dong

Chenlei Ji

Sicheng Jian

Ngoc Chau Khuc

Lam Ravi Wing Fung

Liu Yingze

Steven Loi

Yining Mao

Tomas Rohan Marks

Christopher Mattiske

Shihao Ni

Wenrong Pang

Ottar Jacob Roder

Felix Trelease Tobin

Chaoran Wang

Benjamin Ian Weatherall

Wong Hau Yan Iris

Li Wei Xu

Zhennan Xu

Wai Hou Yeung

Bo Yuan

Chenglin Max Zhang

Nanye Zou

Degree of Bachelor of Computer Science (Advanced)

Jan Hermanus De Klerk

Peter Dinh

Ryan James Faulkner

Le Dinh Minh Long

Seyed Farbod Taghizadeh Motlagh

Emillie Rose Thiselton

Honours Degree of Bachelor of Engineering

Jeremy Joshua Abbot — Computer Systems Engineering

Roziana Abdullah — Electrical and Electronic Engineering

Surbhi Sanddeep Ahuja — Electrical and Electronic Engineering

Thomas Ralph Barone — Computer Systems Engineering

Aaron James Boyall — Electrical and Electronic Engineering

Quanhao Chen — Electrical and Electronic Engineering

Pranjal Chowdhury — Computer Systems Engineering

Henry Clayden-Rose — Electrical and Electronic Engineering

Jason Robert Dodd — Software Engineering

Emmanuel Eldho — Software Engineering

Siti Nurfatinah Faizal — Electrical and Electronic Engineering

Thomas Joseph Focareta — Computer Systems Engineering

Yen Hoang — Electrical and Electronic Engineering

Elizabeth Hodgins — Electrical and Electronic Engineering

Nehal Jain — Software Engineering

Ting Jiang — Electrical and Electronic Engineering

Lazarus Fernando Fausto Lai De Oliveira — Electrical and Electronic Engineering

Mingxiang Li — Electrical and Electronic Engineering

Zhengqian Lu — Electrical and Electronic Engineering

Liam Travis Mellor — Electrical and Electronic Engineering

Corey William Miller — Electrical and Sustainable Energy

Muhammad Sufyaan Bin Mohd Faiz — Electrical and Electronic Engineering

Ross James Paynter — Electrical and Electronic Engineering

Orbille Christian Piol — Electrical and Electronic Engineering

Jessica Lee Pisaniello — Electrical and Electronic Engineering

Michael Prendergast — Electrical and Electronic Engineering

Nathan James Reid — Electrical and Electronic Engineering

Zizheng Ren — Electrical and Electronic Engineering

David Christopher Scavarelli — Software Engineering

Thomas Suebwicha — Electrical and Electronic Engineering

Jinhua Wang — Electrical and Electronic Engineering

Nan Yang — Electrical and Electronic Engineering

Lei Yi — Electrical and Electronic Engineering

Izatul Natasha Zulkefli — Electrical and Electronic Engineering

Honours Degree of Bachelor of Computer Science

Mohammad Mahdi Kazemi Moghaddam

Francis John Pinaroc

Seyed Farbod Taghizadeh Motlagh

Graduate Diploma in Computer Science

Shuo Zhao

Degree of Master of Software Engineering

Jiexin Li

Phan Huy Nguyen

Linsheng Wu

Tianshuo Zhang

Qihua Zhu

Degree of Master of Computing and Innovation

Congwei Bai

Anna Dai

Alexander Simon Freezer

Liu He

Xu Hou

Jingting Li

Weijie Liang

Qianyi Liu

Zhihui Lyu

Lun Nie

Kang Rong

Daimeng Shi

Chaohan Wang

Xiuquan Wang

Yining Wang

Benjamin Charles Arthur Winding

Jiatong Xie

Xinyi Xu

Xiang Yan

Peng Zhang

Tianyuan Zhang

Fang Zhou

Wei Zhou

Degree of Master of Computer Science

Hansheng Liu

Fang Xu

Jinan Zou

Degree of Master of Engineering (Electronic)

Bikram Thapa

Degree of Master of Engineering (Electrical)

Yi-Fan Chen

Sisi Feng

Yiwei Sun

Degree of Master of Science in Mathematical and Computer Sciences

Amir Kanan Kashefi

thesis: Semantic Component Selection Based on Non-Functional Requirements

thesis abstract: Reusing existing software components in place of requiring the implementation of new components can reduce the complexity of the software development. However, for a software components to be effectively identified for reuse, we need a good understanding of both the functional and Non-Functional Requirements (NFRs) of the component needed, and the components available. NFRs are typically complex, and difficult to both understand and effectively articulate. Requirements engineering provides manual, expensive and error-prone reasoning techniques for this problem. This thesis describes a framework that provides the necessary tools and techniques for automating reasoning including a NFRs ontology and search algorithm.

Degree of Master of Philosophy

Michelle Claire Edwards

thesis: The One with the Social Network Analysis: The Extraction, Analysis and Modelling of Temporal Social Networks from Narratives

thesis abstract: Narrative analysis is a powerful tool for understanding people, cultures, and time periods in and about which they were written. One way to analyse narratives is through their social networks, however extracting the network is a complex task. In this thesis, we perform a detailed comparative study of narrative social network extraction techniques, and investigate the effect the techniques have on the analysis of the narrative. We use the television series Friends as a case study to model and compare extraction techniques, and analyse the social networks to gain new insights into the the series and its success.

Daniel Cody John

thesis: Holomorphic Immersions of Restricted Growth from Smooth Affine Algebraic Curves into the Complex Plane

thesis abstract: We investigate immersions of restricted growth from affine curves into the complex plane. We focus on the finite-order and algebraic categories. In the finite-order case we prove a generalisation of a result due to Forstneric and Ohsawa, showing that on every affine curve there is a finite-order 1-form with prescribed periods and divisor, provided we restrict the growth of the divisor at the punctures. We also enumerate the algebraic immersions of triply punctured compact surfaces into the complex plane using the theory of dessins d'enfants and obtain an upper bound on the number of surfaces that admit such an immersion.

Daniel Dean Kon

thesis: Statistical Models for Missing Data in Proteomic Studies of Gastric Cancer

thesis abstract: Biomarkers are proteins differentially expressed in diseased vs healthy organisms, used for disease diagnosis. Response-dependent missingness in proteomic mass spectrometry data biases statistical inference for true differences between average protein expression values of diseased vs healthy organisms, hindering searches for more discriminatory biomarkers. We develop joint statistical models for missing and observed data and apply it to a dataset from a gastric cancer experiment that is subject to response-dependent missingness in order to discover novel candidate biomarkers. The set of candidates biomarkers differs from the set that resulted from earlier modelling work that did not account for the missingness.

Rachel Su Yi McLean

thesis: Optimal Wildlife Smuggling Interdiction

thesis abstract: The illegal trade of wildlife is a threat to the survival of many species. This thesis introduces a game between smugglers and biosecurity agencies played on a transport network. Smugglers attempt to transport items to a destination country with an objective to minimise a combination of time and probability of interception. Limited biosecurity resources can be placed at entry points to maximise the probability of interception. We describe two evolutionary algorithms that find optimal resource allocations. We develop a case study based on trafficking from African and Asian sources into Vietnam. Optimal resource allocations given various smuggler objectives are found.

Samuel Mills

thesis: Geometric K-homology and the Atiyah-Singer index theorem

thesis abstract: This thesis presents a proof of the Atiyah-Singer index theorem for twisted Spin-c Dirac operators using K-homology. We introduce the topological and analytic indices of a pair (M,E), consisting of a smooth closed Spin-c manifold M and smooth complex vector bundle E over M. The main result is that both the analytic and topological index is well-defined on K-homology classes and there exists a representative on each class for which they agree. We also present an analogue of the index theorem when a finite group action is introduced on (M,E) and an overview of the steps to prove this result.

Jessica Penfold

thesis: Using Approximate Bayesian Computation and Machine Learning Model Selection Techniques to Understand the Impact of Climate on Seasonal Influenza-like Illness in Australia

thesis abstract: Influenza-like illness (ILI) exhibits a seasonal cycle in temperate climates. However, the explanation of this seasonality remains poorly understood. We develop stochastic epidemic models and a Bayesian machine learning model selection framework to understand ILI seasonality, selecting between functional forms of climate-dependent transmission in Australia. We find that absolute humidity has the strongest impact on seasonal ILI. Finally, we consider forecasting ILI using ensemble modelling techniques, including a new prototype forecasting framework, and implement this to predict the 2014 peak week of ILI. Results suggest that our new framework deserves further exploration.

Bethany Pamela Phipps

thesis: Longitudinal Data Analysis for Improving Patient Outcomes Following Hip Replacement Surgery

thesis abstract: Joint replacement surgery leaves many patients with postoperative pain and function limitations for extensive periods of time after the surgery. This research predicts the likelihood of poor symptomatic recovery following surgery using pre-operative patient data, such as age and sex. The dataset analysed is total hip replacement data from the Royal Adelaide Hospital. Using pain and function data collected repeatedly after surgery, longitudinal data analysis is explored, specifically mixed-effects modelling. The joint modelling of both survival and longitudinal outcomes is developed. Prediction methods are compared to assess the potential benefits of total hip replacement surgery for patients prior to surgery.

Matthew James Ryan

thesis: The Parametric Oka Principle for Riemann Surfaces

thesis abstract: Oka theory is a newer area of complex analysis, blossoming since 2000. We explore the parametric Oka principle for Riemann surfaces, generalising the result of Winkelmann from 1993. We also introduce the higher parametric Oka principle, with which we explore the counterexamples Winkelmann gives in his paper.

Jerome Oskar Williams

thesis: Efficient Deep Learning Models with Autoencoder Regularization and Information Bottleneck Compression

thesis abstract: Improving efficiency in deep learning models implies achieving a more accurate model for a given computational budget, or conversely a faster, leaner model without losing accuracy. In order to improve efficiency, we can use regularization to to improve generalization to the real world, and compression to improve speed. Due to the information-restricting nature of regularization, these two methods are related. Firstly we present a novel autoencoder architecture as a method of regularization for Pedestrian Detection. Secondly, we present a hyperparameter-free, iterative compression method based on measuring the information content of the model with the Information Bottleneck principle.

Degree of Doctor of Philosophy

Dr Hassan Ali Mohsin Al-Saadi

thesis: Probabilistic Hosting Capacity and Risk Analysis for Distribution Networks

thesis abstract: The thesis presents several novel methods. The first novelty is the development of a new probabilistic model for estimating the solar radiation incident on residential roofs which is compatible with Australian meteorological conditions. The second is the development of new probabilistic approach called "probabilistic hosting capacity" to estimate the hosting capacity of distribution networks. The third one is the utilization of sparse grid technique in handling the uncertainty computations. The last contribution is the new assessment method for quantifying the risk of connecting a large number of correlated DGs into the distribution networks.

Dr Hao Guo

thesis: Positive Scalar Curvature and Callias-Type Index Theorems for Proper Actions

thesis abstract: We study equivariant index theory of Dirac and Callias-type operators on cocompact and non-cocompact manifolds equipped with the action of a Lie group. In the cocompact case, we establish a number of results, including Poincare duality, and apply them to prove a rigidity result for almost-complex manifolds - generalising a theorem of Hattori - and an analogue of Petrie's conjecture. In the non-cocompact situation, we define equivariant Callias-type operators and show that they are Fredholm. We construct admissible endomorphisms for such operators using the K-theory of the Higson G-corona and apply the theory to find obstructions to positive scalar curvature.

Dr Chongyu Liu

thesis: Joint Appearance and Motion Model for Multi-class Multi-object Tracking

thesis abstract: Model-free tracking is a widely-accepted approach to track an arbitrary object in a video using annotation information in a single frame about the target. Extending this problem to track multiple objects is really challenging. The thesis proposes to use both appearance and motion models to tackle this problem, and jointly learn their parameters in an online fashion. An indicator variable is introduced to predict sudden appearance change and/or occlusion. Moreover, the correlation among all targets is considered, and the joint optimal locations is inferred simultaneously as a graphical model inference problem. Experiment results show our method outperforms the state-of-the-art.

Dr Gabriel Maicas Suso

thesis: Pre-hoc and Post-hoc Diagnosis and Interpretation of Breast Magnetic Resonance Volumes

thesis abstract: Traditional methods for breast cancer screening from breast DCE-MRI follow a pre-hoc approach that is ineffective due to the expensive inference process and the large strongly labeled datasets needed in the training phase. We propose two methods that address the issues of pre-hoc approaches. We further propose a post-hoc method trained from a small weakly annotated dataset and its systematic comparison with the pre-hoc approach. Results show that the post-hoc approach outperforms the pre-hoc approach for malignancy diagnosis, and achieves competitive results in malignant lesion localisation despite the use of weakly labeled dataset.

Dr Peter Mathews

thesis: Characterising the Social Media Temporal Response to External Events

thesis abstract: This thesis aims to improve understanding of the temporal relationship between events, news and associated social media activity. The first part of the thesis focuses on the relationships between Twitter and news media. We provide evidence that the social media reaction to events is faster than the traditional news reaction. The second part of the thesis examines information cascades. We show that retweet rate decay is well-modelled as a power law with exponential cutoff, providing a better model than the widely used power law. The third major part of the thesis concerns tweet clustering methods in response to events.

Dr Richard Henry Edwin Matthews

thesis: Towards a Unified Theory of Sensor Pattern Noise: An analysis of Dark Current, Lens effects and Temperature Bias in CMOS Image Sensors

thesis abstract: Matching images to a discrete camera is of forensic importance. In the case of digital photos, matching is made possible through the use of sensor pattern noise (SPN) present within every image. Misconceptions exist with how this noise reacts under variables such as temperature and interchangeable lenses. This work explores the effects of dark current, temperature and lens systems on SPN methods. Herein, a commonly used image sensor is reverse engineered to document possible sources of SPN. A breakdown of SPN is shown. A new method for establishing the temperature of a discrete image without a priori knowledge is presented.

Dr Menghan Sun

thesis: UHF Energy Harvesting and Power Management

thesis abstract: The proliferation of internet-of-things (IoTs) has motivated the development of energy efficient harvesting devices. Radio frequency (RF) energy harvesting stands out amongst the other energy harvesting schemes as it is very reliable and can be operated at a long distance. This thesis focuses on developing integrated RF energy harvester operating at UHF band using 130 nm CMOS technology, from (i) power conversion efficiency (ii) settling speed, and (iii) input power sensitivity. In addition, presents innovative intelligent power management schemes to cope with the wide output power from the harvester.

School of

ARCHITECTURE AND BUILT ENVIRONMENT

Degree of Bachelor of Architectural Design

Zhouyuan Chang

Millie Cockburn

Shichao Deng

Yue Feng

Ann Cecilia Gregory-Larson

Junnan Ji

Haobo Liu

Kee Seng Loo

Emmeline Grace McArdle

Siti Sarah Jasmine Mohd Azmin

Nur Izrin Nadhira Mohd Zahidi

Tianyu Ni

Ravinaben Nandubhai Prajapati

Ziyan Qi

Rashika Rajpal

Mohammad Jawad Rezaie

Ruxuan Shi

Yue Yin

Degree of Master of Property

Keyue Cen

Jiawen Gao

Lu Liu

Degree of Master of Planning (Urban Design)

Mei Liu

Yu Liu

Wenxi Xia

Degree of Master of Planning

Mazen Ali A Alghamdi

Karolina Kapralova

Cihui Wang

Degree of Master of Landscape Architecture

Yan Chen

Zinan Chen

Weicheng Deng

Shike Dong

Kai Guo

Xu Han

Junwei Hou

Xiaoyan Hou

Qiqi Li

Yi Li

Yueming Li

Binyan Ou

Jingxian Song

Yuan Tao

Zhaowei Tu

Xiaohan Wang

Youxin Wang

Huiying Wu

Ying Zhang

Xueru Zhao

Huijing Zheng

Siqi Zheng

Yuqing Zhou

Yanming Zou

Degree of Master of Architecture

Ye Huang

William Jury

Xiaoxin Li

Hongcheng Lian

Chintan Bharatkumar Mistry

Devansh Maunang Patel

Degree of Doctor of Philosophy

Dr Martin Larbi

thesis: Green Urbanism in Contemporary Cities: A Socio-technical Transition Analysis

thesis abstract: Green Urbanism evokes a wide range of ideas, images, and perceptions about how cities should be planned, developed, and/or governed to create a balance between human activities and the natural environment. This study examines how different socio-economic contexts and local dynamics influence how Green Urbanism is conceived and applied. It assesses the drivers of and barriers to green urban transitions, and what factors in cities provide potential sources of leverage for a transition towards Green Urbanism. The applied analysis shows that these processes are not in general linear or predictable pathways of progress, but are complex and multifactorial.

Additional AWARDS

ADELAIDE BUSINESS SCHOOL

Degree of Bachelor of Finance

Maizura Binti Mazuin

Benjamin Andrew Zuill

Your ALUMNI COMMUNITY

As a graduate of the University of Adelaide, we welcome you to the alumni community.

Our alumni have a history of shared experiences and memories, understood by those who came before you, those who studied with you and those who will soon join the alumni community.

As part of the University family, you receive professional support throughout your career, access to lifelong learning and a community to share and celebrate your achievements.

Being part of our alumni community unlocks access to a range of opportunities including:

BENEFITS

Enjoy access to a range of alumni benefits and services including complimentary Barr Smith Library membership for a year after you graduate, after-hours parking permits, travel insurance and much more. For more information visit **ua.edu.au/alumni/benefits**

NETWORKS

Alumni Networks help alumni connect with each other and the University with opportunities for career development and collaboration. Continue your connection and interaction with other alumni and the University by attending one of our alumni network events. Find out about upcoming network events: **ua.edu.au/alumni/networks**

PUBLICATIONS

We offer a range of diverse and informative publications to keep you informed of the latest news and events across the University.

Enjoy reading our biannual magazine lumen for uplifting stories of the work and lives of alumni, and stay updated with the latest University news in our monthly Alumni e-News. Read the latest edition of lumen at **ua.edu.au/alumni/lumen**

REUNIONS

Alumni Reunions provide the opportunity for all alumni – students and staff alike – to revisit the people and places that made their time at the University of Adelaide unique. Find an upcoming reunion at **ua.edu.au/alumni/reunions**

ALUMNI COUNCIL

As an alumnus, you have the right to vote or nominate members for the Alumni Council which represents the global alumni community's views. The Alumni Council commits to supporting a dynamic and relevant alumni program, for the mutual benefit of alumni and the University.

AWARDS

Our alumni's influence on the world stage is profound, from their efforts advancing the common good to inspiring others to think innovatively and creatively. We are proud to celebrate and acknowledge these achievements each year through an array of alumni awards.

MAKE A DIFFERENCE

A gift to the University directly supports students and researchers in realising their potential. Student scholarships are a priority, so that our best and brightest will not miss out on the transformative influence of a tertiary education because of their financial circumstances. Contributions towards cutting-edge, high-impact research ensure that we can tackle the most challenging problems of our time.

We value support in all forms, no matter how big or small. Your gift will have a lasting impact.

To find out how you can support the University, please visit **ua.au/give** or call +61 8 8313 5800.

KEEP IN TOUCH

Updating your details online ensures you stay connected with the University wherever you are in the world. Update your details at: **ua.edu.au/alumni/reconnect**

Find out more about our alumni program:

T: +61 8 8313 5800
E: alumni@adelaide.edu.au
W: www.adelaide.edu.au/alumni

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