



# GRADUATION CEREMONY

*Faculty of Science*

SARAH BAARTMAN HALL

9 September 2025

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# FACULTY OF SCIENCE

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## ORDER OF PROCEEDINGS

Academic Procession.

*(The congregation is requested to stand as the procession enters the hall)*

The Presiding Officer will constitute the congregation.

The National Anthem.

Welcome by the Master of Ceremonies.

Musical Item.

The graduands will be presented to the Presiding Officer by the Dean of the faculty.

The Presiding Officer will congratulate the new graduates.

The Master of Ceremonies will make closing announcements and invite the congregation to stand.

The Presiding Officer will dissolve the congregation.

The procession, including the new graduates, will leave the hall.

*(The congregation is requested to remain standing until the procession has left the hall.)*

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# NATIONAL ANTHEM

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Nkosi sikelel' iAfrika  
Maluphakanyisw' uphondolwayo,  
Yizwa imithandazo yethu,  
Nkosi sikelela, thina lusapho lwayo.

Morena boloka etjhaba sa heso,  
O fedise dintwa la matshwenyeho,  
O se boloke,  
O se boloke setjhaba sa heso,  
Setjhaba sa South Afrika – South Afrika.

Uit die blou van onse hemel,  
Uit die diepte van ons see,  
Oor ons ewige gebergtes,  
Waar die kranse antwoord gee,

Sounds the call to come together,  
And united we shall stand,  
Let us live and strive for freedom,  
In South Africa our land.

## NAMES OF GRADUANDS

### FACULTY OF SCIENCE

*Dean: Professor H Suleman*

#### DEGREE OF BACHELOR OF SCIENCE

Abdou, Ibrahim Mostafa  
Adams, Kelly  
Baderoen, Mogammad Qaanit  
Baloyi, Botlhari  
Bester, Cara Mia  
Bisnath, Troy  
Brown, Caroline Mary  
Bucibo, Neo Herry's  
Carelse, Marcus Leon  
Chemaly, Thomas Arthur  
Chen, Hong-Luen  
Chetty, Keano Jehiel  
Chihobo, Ishevakudzwe Allen  
Coshiwe, Elton  
Dangisa, Lindokuhle  
Davis, Melissa Louisa  
Dilotsothe, Thatoyaone  
Dlamini, Nqobani Vuka  
Duffy, Erin Leigh  
Dungelo, Mazisi  
Dyantyi, Kanyolwethu  
Elkon, Gaia Rose  
Fanner, Sinjin Christian (with distinction  
in Biochemistry and Genetics and  
the degree with distinction)  
Ficks, Meryl-Ann Olivia  
Genu, Akhona  
Githinji, Melissa  
Gonsenhauser, Noah Creser  
Govuza, Lungile  
Hadebe, Stanley  
Harri, Kiara  
Harris, Rayyan  
Harrison, Tayob Anastasia  
Hendricks, Josh Daniel  
Hlabe, Mzimasi  
Hlaise, Khensani  
Hlatshwayo, Nonhlanhla Randy  
Hlatywayo, Xolani  
Horne, Aster  
Hurrypursad, Shikar  
Imevbore, Ohiorere Benjamin  
Jenete, Amahle Likhaya  
Kamish, Haneem (with distinction in  
Genetics)  
Kamkam, Xolisa  
Karreem, Farzana

Kasker, Mu'aaz  
Kasongo, Joseph Damberd  
Kgole, Tshegofatso  
Khanyile, Bayanda Thuthukani  
Khumalo, Mpendulo Siwela  
Khumalo, Nqubeko  
Kubeka, Zanele  
Lala, Tashil  
Laver, Cuba James Will  
Law, Robyn Rita (with distinction in  
Archaeology)  
Louw, Bianca  
Lugongolo, Khanya Kwandiwe  
Lukhele, Dimpho Precious  
Maanda, Phethani Wisdom  
Mabuza, Mnelisi Wiseman  
Magoba, Mulweli  
Majewski, Nicolaas Berend  
Makale, Potlaki Kgalalelo  
Maker, Demi Ann  
Makoloane, Tokelo  
Malatji, Mmanageng Caroline  
Malaza, Dineo  
Matjele, Lefa Calvin  
Matlala, Olebogeng Katlego Gosebo  
Mavuya, Sintu  
Mazibuko, Thobile Noliethah  
Mbayi, Kabelo Lungile  
Mbele, Luyanda Mlamuli  
Mdantsa, Yonela  
Mfanta, Siyamthanda  
Mlandu, Honest Buhle  
Mnisi, Tsatsawani  
Mofokeng, Mpho  
Mohlomi, Mahlomola  
Mokoena, Matete Ashanty  
Moledina, Fatemasughra Sajjad  
Moloi, Karabelo Madintja  
Moloi, Mamello Roseline  
Moodley, Riona  
Mosehla, Kagiso Asser  
Motla, Karabo  
Msimango, Joseph  
Mthethwa, Mpilo Lungelo  
Muir, Georgia Gabriella  
Ndimande, Njabulo Banele  
Ndou, Arinao  
Ngalo, Zanele Lavelle  
Ngesman, Nomvuyo  
Ngonyama, Mvusi  
Nzimande, Kwanele Duke  
Oseile, Orefile  
Palha, Zarah Alyssa  
Phathakga, Phumelele Pretty  
Poole, Caitlin Leigh (with distinction  
in Business Computing and  
Computer Science)  
Poona, Leia

Prins, Darren Cullan  
Rafu, Asive  
Rakata, Matimadiyi  
Rantete, Tshinanga Keith  
Raseobi, Tshepang  
Richardson, Tessa  
Rosenberg, Rowan John (with distinction  
in Computer Science and the  
degree with distinction)  
Salojee, Razeen  
Samachetty, Bhisheka Devi  
Sengwayo, Siyabonga Samuel  
Shabangu, Muhle Faith  
Shoba, Kevin Lwandile  
Sikhosana, Mbulelo  
Tshikovi, Rendani  
Tshona, Luthando  
Van Staden, Jalee Douglas  
Van Zyl, Megan (with distinction in  
Biology)  
Wenzel, Josua Thomas (with distinction  
in Biology, Environmental &  
Geographical Science and Marine  
Biology and the degree with  
distinction)  
Zondi, Ndumiso Wandile

#### DEGREE OF BACHELOR OF SCIENCE HONOURS

Adams, Muhammad Anwar  
Clementson, Robyn-Lee  
Davies, Donal Rhys  
Dzingirai, Takunda Itai  
Hooseria, Sitara Kemo  
Makoelle, Kamohelo  
Maphumulo, Thalente Phiwe  
Mdunyelwa, Cwayita  
Mthimunye, Virginia Rachel  
Sartori, Nicola Max  
Swartz, Ridge David  
Yawa, Simphiwe

#### DEGREE OF MASTER OF PHILOSOPHY

Benya, Anele Songo (with distinction in  
the dissertation)  
Henderson, Benjamin Scott (with  
distinction in the coursework  
component)  
Jatta, Dembo (with distinction in the  
dissertation)  
Khumalo, Fidelity Zwelihle  
Lemos, Ngoia Cidalia Lopes De  
Logie, Jessica Lee

Ord-Armstrong, Leah  
 Poretti, Gemma Dimitra (with distinction)  
 Tunbridge, James Keith  
 Vosloo, Abraham Petrus (with distinction in the dissertation)  
 Wells, Nicola Carly

#### DEGREE OF MASTER OF SCIENCE

Alam, Mohammad Faaris (with distinction)  
 Alexander, Natalie Bianca (with distinction)  
 Appadoo, Prettysha (with distinction)  
 Baloyi, Dumisane  
 Barocci-Faul, Sumari  
 Botes, Peet (with distinction in the coursework component)  
 Capitaine, Carole-Keza  
 Carver, Cameron River (with distinction in the coursework component)  
 Chapoloko, David  
 Dawson, William Leighton  
 De Allende, Celine Cavell  
 De Beer, Gideon  
 Dladla, Unathi (with distinction)  
 Fairall, Elizabeth Pamela (with distinction)  
 Faria, Alexandro Carlos  
 Fourie, Shani  
 Gammon, Emily Jane (with distinction in the coursework component)  
 Govender, Serayen  
 Hanmer, Kira Yasmin Shaovoun (with distinction)  
 Havhi, Mpho  
 Holcroft, Shannon (with distinction in the coursework component)  
 Howard, Lara Annie (with distinction in the dissertation)  
 Imrie, Jane Hannah  
 Irlam, Huw Frank Thando (with distinction)  
 Jacobs, Rabia  
 Kani, Luvuyo Oscar  
 Kidson, Miles Brower (with distinction)  
 King, Wesley John Cole (with distinction)  
 Kirchner, Sabine Maye (with distinction)  
 Kruger, Martin Jaco  
 Le Roux, Natalie Anne (with distinction)  
 Lubobo, Lwandile  
 Lumley, Liam Lester  
 Mahure, Hlobisile Natasia  
 Majela, Karabelo Innocent  
 Marcus, Mahdi

Marincowitz, Maria Elizabeth (with distinction)  
 Mbewe, Busisiwe Nozipho  
 Mcduling, Campbell (with distinction)  
 Mdoda, Sandisiwe Sibulele  
 Meoli, Leina Tajeu (with distinction in the coursework component)  
 Michowicz, Joanna Barbara  
 Mnisi, Mandlenkosi Evans (with distinction in the coursework component)  
 Moagi, Lesedi Lesege  
 Moldenhauer, Jena  
 Mulenga, Choolwe  
 Murwira, Takudzwa Emmanuel (with distinction)  
 Mutomb, Jean Luc Mudib (with distinction)  
 Netshithuthuni, Humbelani (with distinction)  
 Netshitungulu, Funanani Richard  
 Ngwane, Thobekile Sandra  
 Nhlapo, Kagiso Franscios Koketso Boemo (with distinction)  
 Nkele, Sipho Senkosi  
 Nwaigwe, Chukwudi Chuks  
 Nyase, Ndivhuwo (with distinction in the dissertation)  
 Oehley, Craig James (with distinction in the coursework component)  
 Pandit, Zayd (with distinction)  
 Pather, Keyura (with distinction in the dissertation)  
 Pitcher, Tristan River  
 Plumbley, Andrea Catherine (with distinction)  
 Potgieter, Jakobus Stephanus  
 Ragimana, Phumudzo (with distinction in the dissertation)  
 Reagon, Dean  
 Ruiters, Lillina Mercia  
 Schippers, Claude Lionel  
 Seakamela, Simon Mduduzi  
 Shepherd, Kelly Anne  
 Simoen, Jade Christine (with distinction)  
 Snaddon, David Peter Charles (with distinction)  
 Spies, Du Toit  
 Stockenstroom, Leyya  
 Taylor, Julian Leslie  
 Thapo, Thato (with distinction)  
 Theletsane, Modiehi Violet (with distinction)  
 Toma, Farzana Haque (with distinction in the dissertation)  
 Van Zyl, Heiletjé Maria Magrieta (with distinction)  
 van Zyl, Michaela

Van Zyl, Wade  
 Worsley, Jessica Catherine Jade (with distinction)

#### DEGREE OF DOCTOR OF PHILOSOPHY

Ali, Doaa  
 Thesis Title: *Synthesis and mechanistic studies into the cytotoxic activity of garlic-related trisulfides in cancer cells*

Doaa Ali completed her BSc (Hons) and MSc in General Chemistry at the University of Khartoum, Sudan, before pursuing her PhD in Chemical Biology at UCT in 2016.

In vitro laboratory experiments from several research groups globally have shown that garlic-related organosulfur compounds (OSCs) demonstrate high cytotoxicity towards cancer cells. However, a comprehensive understanding of how the cell killing takes place has remained elusive. Doaa Ali's PhD thesis set out to gain insights into this topic by focusing exclusively on one of the garlic chemotypes called organotrissulfides (RSSSR). In the first part of the thesis, she successively developed a new synthetic method for preparing them, allowing a range of organotrissulfides with different R (organic) groups to be accessed. In the second part, she used her synthetic trissulfides to undertake chemical biology studies on cytotoxicity mode of action. These revealed the importance of hydrogen sulfide (H<sub>2</sub>S) as a signalling molecule in the cytotoxic process, as well as the importance of electron-donating substituents on the R groups. The work overall has opened up the way to designing superior cytotoxic agents that can be taken forward into a Drug-Discovery programme for cancer.

*Supervisor:* Emeritus Professor R Hunter (Chemistry)  
*Co-supervisor:* Dr C Kaschula (Stellenbosch University, Chemistry)

Atkin, Ryan Justin

Thesis Title: *Simplified Template Cross Section measurements of associated VH production in the  $H \rightarrow bb$  decay channel with  $\sqrt{s}=13$  TeV proton-proton collisions at the ATLAS experiment*

Ryan Atkins completed his BSc and BSc (Hons) qualifications at UKZN. He joined the Department of Physics at UCT in 2016 to start his MSc studies in experimental particle physics, followed by a PhD in the same field.

Ryan Atkins's thesis reports a study of the production rate of Higgs bosons in association with a W or Z boson in proton-proton collisions, where the Higgs boson decays to two bottom quarks. A maximum likelihood fit is performed within the Simplified Template Cross-Section framework to measure the production rates relative to standard model expectations. The full Run-2 dataset from the ATLAS experiment, with a proton-proton collision centre-of-mass energy of 13 tera-electron volts, is used. Several machine learning algorithms are implemented for background uncertainty calculations and to better distinguish between signal and background events. The impact of the jet selections on smaller regions of phase space is also studied. The findings show agreement with theoretical expectations. There are large statistical uncertainties which will be reduced as more data are collected and analysed.

*Supervisor:* Dr S Yacoob (Physics)

*Co-supervisor:* Dr J Keaveney (Physics)

Audh, Riesna Reuben

Thesis Title: *Physical and biogeochemical properties of seasonal sea ice in the Atlantic sector of the Antarctic marginal ice zone*

Riesna R. Audh completed her BSc and BSc (Hons) qualifications at UCT. She began her MSc in 2018, which was upgraded to a PhD in 2019.

Riesna R. Audh's thesis focuses on the biogeochemistry of Antarctic sea ice in the Atlantic Marginal Ice Zone, an understudied region. Her research developed field and laboratory protocols for sampling sea ice that are adapted to

suit the infrastructure available to South African researchers. The thesis presents the first biogeochemical dataset for young, growing sea ice in the Atlantic sector of the Antarctic marginal ice zone, including winter pancake ice and spring brash ice. Her thesis revealed through observations and numerical simulations that winter sea ice is biologically active, and its growth involves multiple cycles of rafting and melting that preserve unique biogeochemical markers of single floes, thus enhancing the biogeochemical content. Novel nitrogen isotope measurements revealed a temporally advanced nitrogen cycle when compared to previous studies conducted in pack ice. This work expands our knowledge of the Antarctic Marginal Ice Zone and contributes essential data to refine future models of sea ice dynamics and biogeochemical cycles in the Southern Ocean.

*Supervisor:* Professor M Vichi

(Oceanography)

*Co-supervisor:* A/Professor S Fawcett

(Oceanography)

Bhana, Ashlyn Daryn

Thesis Title: *Addressing the ongoing threat of antimicrobial resistance: synthetic investigations of novel amicitin and  $\beta$ -lactam antibiotics*

Ashlyn Bhana completed his BSc (Hons) followed by an MSc in Chemistry at Stellenbosch University. In 2018, he joined H3D as a Senior Scientist working on Malaria and TB projects and in 2021 commenced his PhD in synthetic organic chemistry.

Antimicrobial resistance represents a significant risk to global health security and threatens to undermine a century of healthcare gains. This problem requires the urgent identification of novel chemotypes with antimicrobial potential. In his PhD study, Ashlyn Bhana contributes to this search through two comprehensive explorations of novel Ameticin and  $\beta$ -Lactam chemical scaffolds. Through the further development of greener synthetic methodologies originally developed at UCT, this study has provided an important platform from which these two

promising antimicrobials can be more readily accessed.

*Supervisor:* A/Professor C Veale

(Chemistry)

*Co-supervisor:* Dr W Petersen

(Chemistry)

Bhatporia, Shruti

Thesis Title: *Mathematical methods for classifying fast radio bursts*

Shruti Bhatporia completed her BTech and MTech qualifications in Electronics and Communication at SVNIT Surat and ITNU Ahmedabad in India, and began full-time study towards her PhD in 2021.

Shruti Bhatporia's thesis focuses on mathematical methods for classifying Fast Radio Bursts (FRBs). She explores FRB rates with the Hydrogen Intensity Real-time eXperiment (HIRAX) instrument and discusses the FRB detection pipeline with this radio telescope. Additionally, she investigates the implications of a generic modified gravity theory on the gravitational lensing of FRBs and uses FRB observations to constrain the proportion of dark matter composed of primordial black holes. She also applies Topological Data Analysis (TDA) to characterize the underlying geometric structure of FRB datasets, revealing the existence of three distinct FRB populations. Furthermore, she develops a preprocessing module to aid the Fast Radio Burst Intelligent Distinguisher (FRBID) classifier of the MeerTRAP pipeline. Overall, Shruti Bhatporia's thesis contributes to the understanding of FRBs, their properties, and their potential to constrain cosmological and fundamental physics theories.

*Supervisor:* A/Professor A Weltman

(Mathematics and Applied Mathematics)

Broodryk, David Neal  
Thesis Title: *Characterization of coextensive varieties of universal algebras*

David Broodryk completed his BSc and BSc (Hons) qualifications at UCT and began studying towards his PhD in 2021.

David Broodryk's thesis focuses on the categorical notion of coextensivity in the context of varieties of universal algebras. He finds a syntactic characterisation of coextensivity in this context, by which we mean an algebraic condition in terms of terms and identities that a variety must satisfy if and only if it is coextensive. He further shows that every coextensive variety has what he calls a diagonalising term. The existence of such a term is seen to be a Mal'tsev condition which is itself sufficient to prove many sub conditions of coextensivity. He goes on to introduce the notion of a category with compatible subproducts as a categorical generalization of varieties with diagonalizing terms and shows that such categories satisfy many of the same subconditions of coextensivity in the context of Barr exact categories.

*Supervisor:* Professor G Janelidze  
(Mathematics)  
*Co-supervisor:* Dr T Janelidze-Gray  
(Mathematics)

De Jager, Wayne  
Thesis Title: *Detection and identification of mechanisms and trends of sea-ice drift variability in the Southern Ocean*

Wayne de Jager completed his BSc and BSc (Hons) qualifications at UCT. In 2020, he began his MSc before later upgrading to a PhD in the following year.

Wayne de Jager's thesis systematically investigates how Antarctic sea-ice rotates in response to local weather, with a paralleled focus on the feasibility of detecting short-term sea-ice cover and motion changes using satellite data. He developed an automated method to quantify sea-ice rotation at daily timescales, providing a new approach for assessing long-term trends. His findings show that since 1991, sea-ice motion patterns have become increasingly aligned with the

wind patterns, suggesting a heightened sensitivity of sea-ice to weather in recent decades. He also introduces a novel framework for retrieving and combining high-frequency sea-ice cover and motion observations from satellite swath data, revealing rapid sea-ice responses to weather that traditional retrieval methods cannot resolve. This research advances our understanding of short-term sea-ice variability and its connection to global climate, insights which are essential for improving predictions of future climate scenarios.

*Supervisor:* Professor M Vichi  
(Oceanography)

Franck Eitel, Kemgang Ghomsi  
Thesis Title: *Sea level variability in the Tropical Atlantic since 1993 and projections to 2100*

Franck Eitel Kemgang Ghomsi holds a BSc in Fundamental Physics and two MSc degrees, in Physical Oceanography and Applications and in Geophysics and Geoexploration. He joined the Department of Oceanography at UCT in November 2021 to pursue his PhD studies.

Franck Ghomsi's thesis explores sea level rise and its impacts on the African coast, focusing on the Gulf of Guinea (GoG), the Eastern Tropical Atlantic Ocean (ETAO), and southern Africa. His work shows that the regional sea level rise on the African coast exceeds the global averages. The regional sea level is driven by local climate conditions and extreme events such as Atlantic Niños. Combining decades of satellite observation datasets with multi-model climate simulation datasets, he reveals an acceleration in sea level rise and projects substantial risks of coastal flooding that can displacing millions of people in the GoG. His research provides essential insights into regional sea level trends, underscoring the urgency of developing adaptation strategies to mitigate the socio-economic impacts of climate change.

*Supervisor:* Professor B Abiodun  
(Oceanography)  
*Co-supervisors:* Dr R Raj  
(Nansen Environmental and Remote

Sensing Center); Dr A Bonaduce (Nansen Environmental and Remote Sensing Center); Professor O Johannessen (Nansen Scientific Society)

Govindasamy, Lekita  
Thesis Title: *Using single cell RNA sequencing to assess immunological responses in quails injected with porcine circovirus-like particles*

Lekita Singh completed a BSc in Microbiology and Biochemistry, followed by BSc (Hons) and MSc degrees at the University of KwaZulu-Natal. She then did a Masters exchange at the University of Bologna in Italy. Following industry experience as a senior manager, she joined the Biopharming Research Unit at UCT for her PhD studies.

Lekita Singh's thesis reports the transcriptomic profile of more than 12000 immune cells isolated from Japanese quails. Having synthesised a recombinant porcine circovirus-like vaccine in *E.coli*, she then injected the vaccine into groups of Japanese quails. This allowed her to isolate antibodies specific to the viral antigen and study the gene expression patterns, and biological pathways of each individual cell obtained from the immune system. Using bioinformatic tools, she was able to analyse the evolution of the quail immune response. Her findings included identification of the cell types and subtypes present in the innate and adaptive immune systems as well as gene expression and regulatory pathways involved in the quail immune response against porcine circovirus. The findings from her study will be useful in future development of a better annotated quail atlas and therapies against the virus.

*Supervisor:* Professor I Hitzeroth  
(Molecular and Cell Biology)  
*Co-supervisor:* Professor E Rybicki  
(Molecular and Cell Biology);  
Dr D Hockman (Human Biology)

Grusd, Samantha Paige

Thesis Title: *Spatialised ecosystem modelling to evaluate the influences of marine protected areas and provisioning ecotourism on the foraging and distributional response of top predators from Mossel Bay to Algoa Bay, South Africa*

Samantha Grusd has completed a BSc degree (with Hons equivalent) in Marine Sciences with a focus on Biology from the University of Maine, USA (2015), and a MSc degree in Applied Marine Sciences from UCT (2017). She began working towards her PhD full time in 2018.

Samantha Grusd's thesis focuses on analysing the response of predator-prey dynamics to various ecosystem utilisations in a uniquely diverse marine environment. Using localised data and literature, she developed complex spatial ecosystem models to determine the spatial response of ecosystem-regulating top predators to the implementation of new marine protected areas (MPAs) and seasonal shark cage diving (ecotourism) on the South-East coast of South Africa. Using novel model configurations, she mapped the changes in spatial concentration of top predators over time and highlighted the potential implications of these changes at the ecosystem level. While consistent localised shifts in top predator concentration (spatial use) were evident over time in response to the new MPAs and ecotourism operation, there were no major implications of these ecosystem utilisations on the structure and functioning of the system as a whole.

*Supervisor:* A/Professor L Shannon (Biological Sciences)

*Co-supervisor:* A/Professor A Jarre (Biological Sciences)

Gupta, Nitin

Thesis Title: *Quantum chaos and phase transitions*

Nitin Gupta holds an MSc in Physics from the IIT Guwahati and was a Junior Research Fellow at the Indian Institute of Science Education and Research, before joining UCT as a Science Faculty PhD Fellow in the Department of Mathematics and Applied Mathematics in 2021.

Quantum materials are substances that display quantum properties, like superconductivity, on a large scale. These materials are essential in modern technologies, from smartphones and medical devices to Maglev trains. Understanding the phases of quantum materials, and how they change, is key to advancing technology. Nitin Gupta's thesis explores a method to study these quantum phases and their transitions using a powerful mathematical tool called Krylov Complexity. Typically used to measure chaos in quantum systems, Nitin Gupta's research shows that Krylov Complexity can also detect quantum phase changes, showing clear signals at quantum critical points. In contrast with existing techniques, this method is simple and requires minimal extra computation, making it a promising tool for studying quantum materials in the future.

*Supervisor:* Professor J Murugan (Applied Mathematics)

*Co-Supervisor:* Dr S Haque (Applied Mathematics)

Hart, Shanyn-Dee

Thesis Title: *Building a hybrid Compton camera for improving medical imaging applications*

Shanyn-Dee Hart holds a BSc (Hons) in Nuclear Science and Engineering and an MSc in Nuclear Physics with distinction from the University of the Witwatersrand. In 2022, she joined UCT for her PhD studies, conducting research at iThemba LABS in Cape Town.

Shanyn-Dee Hart's research focused on developing advanced gamma-ray imaging systems, known as Compton cameras, to improve medical imaging for applications such as proton

therapy. She designed and tested three Compton camera prototypes, each using innovative detector types and arrangements to capture and reconstruct gamma-ray paths with high precision. Her work highlights the potential of these cameras to produce clearer, more accurate images for medical diagnostics. Among the designs, one compact system using scintillation (LaBr<sub>3</sub>:Ce) detectors coupled to silicon photomultipliers, stood out for its modularity, low-voltage operation and promising imaging quality. This work provides valuable insights into the development of imaging technologies that enhance diagnostic precision and therapeutic outcomes in healthcare.

*Supervisor:* A/Professor S Peterson (Physics)

*Co-supervisors:* Dr P Jones (iThemba LABS); Dr L Pellegrini (iThemba LABS)

Kajee, Mohammed

Thesis Title: *Trajectories of change in South Africa's freshwater fish fauna*

Mohammed Kajee completed his BSc and BSc (Hons) degrees at UCT. He also holds a Postgraduate Certificate in Carbon Management from the University of Edinburgh, UK. In 2018, he registered for his MSc degree, which was upgraded to a PhD in 2020.

Mohammed Kajee's thesis presents a comprehensive assessment of the state of freshwater fishes occurring in South Africa. This involved developing the country's first online database for freshwater fishes, collating more than 60 000 records for 129 species from across South Africa. Analyses of these data provide valuable insights into the spatial patterns of species richness, endemism, threat status, and non-native species occurring in South Africa. In addition, Mohammed Kajee assessed the effectiveness of South Africa's protected area network in conserving freshwater fishes, while also developing a statistically robust method to model the distributions of these species, facilitating the prediction of current and future species' distribution patterns. His research transcends the academic realm, with outputs already being included in the Department of Forestry, Fisheries, and

Environment's National Environment Screening Tool, providing much needed additional protection for threatened fishes occurring in South Africa.

*Supervisor:* Emeritus Professor C Griffiths (Biological Sciences)  
*Co-supervisors:* Dr H Dallas-Daw (Freshwater Research Centre); Dr J Shelton (Freshwater Research Centre)

Lloyd-Jones, David  
Thesis Title: *Cooperation, ecology and behaviour in the honeyguide-human mutualism*

David Lloyd-Jones is from Tanzania and holds a BSc (Hons) in Biology from the University of Canterbury, New Zealand. He joined the FitzPatrick Institute of African Ornithology at UCT in 2017 as a field researcher and later PhD student.

David Lloyd-Jones's thesis focusses on the ecology and evolution of a remarkable cooperative relationship between our own species and an African bird, the greater honeyguide, which leads human honey-hunters to wild bees' nests. His research, carried out in collaboration with a community of honey-hunters in Niassa Special Reserve, northern Mozambique, investigated the costs and benefits of cooperation to both species; demonstrated how the mutualism is resilient to exploitation by competitors; illuminated the rare phenomenon of honeyguides leading humans to other dangerous animals instead of bees; and investigated how honey-hunting with honeyguides influences savannah tree ecology. His thesis draws together findings from several disciplines, linked by the central human-honeyguide relationship, to provide insights into how a mutualism both shapes and is shaped by ecology and culture, and advances our understanding of mutualistic interactions in nature.

*Supervisor:* Professor C Spottiswoode (Biological Sciences)

Mahony, Caitlyn Daunt  
Thesis Title: *Mitochondrial mechanisms in Autism Spectrum Disorder: characterising the neurotoxic effects of propionic acid in vitro*

Caitlyn Mahony completed her BSc in Biochemistry and Genetics at UCT in 2018 and went on to complete her BSc (Hons) in 2019. She started her MSc in Molecular and Cell Biology in 2020, which was upgraded to a PhD at the end of 2021.

Caitlyn Mahony's thesis develops a neuronal cell model to study the relationship between metabolism and neurodevelopment in Autism Spectrum Condition (ASC). She uses a biochemical approach to model signatures of metabolic stress found in a South African (SA) ASC cohort, reporting significant changes to mitochondrial membrane potential, morphology, dynamics and metabolism that significantly impair neuronal viability. She goes on to establish a method to model neurodevelopment *in vitro*, finding that metabolic stress alters neuronal morphology and maturation. Lastly, global transcriptomic profiling shows that metabolic stress changes the epigenetic, transcriptional and metabolic landscapes that shape neuronal cell fate, leading to signatures of injury, inflammation and excitotoxicity. Together, this work provides mechanistic insight into the mitochondrial component of ASC that may help us to understand neurodevelopmental disorders in SA populations.

*Supervisor:* Dr C O'Ryan (Molecular and Cell Biology)

Mbewe, Enock Samuel  
Thesis Title: *Cost-driven internet security decision model*

Enock Samuel Mbewe began his PhD in Computer Science at UCT in 2019, focusing on usable Internet security. Prior to this, he obtained a BSc in ICT and an MSc in Information Theory, Coding and Cryptography from Mzuzu University, Malawi. He also has professional IT experience in the banking sector and academia.

Enock Samuel Mbewe's thesis explores user engagement in

Internet security decision-making and configuration. His research is motivated by the rise in cyber-attacks on individuals, highlighting the importance of personal cybersecurity. His research uses Internet measurements to show how security settings can degrade Quality of Experience, especially in low-resource networks. He also uncovers flawed mental models and behaviours, where users sometimes sacrifice security for short-term ease and convenience. He developed and tested a user-friendly, data-driven Internet security configuration model that can inspire future tools aimed at enhancing personal online security.

*Supervisor:* Dr J Chavula (Computer Science)

McCready, Carlyle  
Thesis Title: *Latent class modelling of respiratory outcomes in a South African birth cohort*

Carlyle McCready completed his BCom (Hons) studies in Statistics at Stellenbosch University in December 2016 before moving to UCT from where he graduated with a MSc in Biostatistics in 2019 and started his doctoral studies in 2020.

Carlyle McCready's thesis focuses on the analysis of longitudinal respiratory and lung function measurements from the Drakenstein child health study. He used complex statistical models to describe mean profiles and capture the heterogeneity in longitudinal profiles of childhood wheeze and lung function. He identified underlying latent phenotypes of wheeze and lung function and predictors of these phenotypes using feature clustering and latent class mixed effect modelling. He found interesting associations between early childhood LRTI together with different degrees of severity of RSV and socio-environmental factors and the different patterns of childhood wheeze and lung function performance that could guide targeted interventions to improve childhood health.

*Supervisor:* Professor F Little (Statistical Sciences)

*Co-Supervisors:* Professor H Zar (Paediatrics and Child Health); Associate Professor F Gumede (Statistical Sciences)

Mc Gowan, Grant Joseph James  
Thesis Title: *Investigating the roles of early host transcriptional responses and protein trafficking in circadian clock modulation of immunity in Arabidopsis*

Grant Joseph James Mc Gowan completed his BSc and BSc (Hons) qualifications at UCT and began full-time study towards his PhD in 2016.

Grant Mc Gowan's thesis investigates the molecular basis of temporal variation in the immune response mounted by *Arabidopsis thaliana* upon pathogen detection. Using RNA-sequencing he demonstrates that *Arabidopsis* mounts a stronger and more robust transcriptional response to the bacterial pathogen *Pseudomonas syringae* pv. *tomato* DC3000 in the subjective morning versus subjective night and can better resist effector-driven modulation of host gene expression at this time of day. In parallel, analysis of the pathogen transcriptome reveals time-of-infection dependent variation in gene expression that may be associated with differences in the apoplastic environment. Finally, he demonstrates that two dynamin-related proteins previously shown to be required for proper trafficking of pattern recognition receptors to the plasma membrane are essential for temporal modulation of immunity against the necrotrophic fungal pathogen *Botrytis cinerea*. These findings provide insight into the mechanisms by which the circadian clock regulates plant immunity.

*Supervisor:* Associate Professor R Ingle (Molecular and Cell Biology)

Meyer, Francois Rolihlahla  
Thesis Title: *Subword segmental neural language generation for Nguni languages*

Francois Meyer joined UCT as a PhD student in 2021 and is currently working as a Lecturer in Computer Science. He previously obtained undergraduate degrees in Computer Science at Stellenbosch University and a Masters in AI from the University of Amsterdam.

Francois Meyer's thesis develops subword segmental modelling,

a new paradigm for deep learning-based natural language generation systems. This modelling paradigm is designed to suit languages with rich morphological systems, such as the Nguni languages of South Africa (isiXhosa, isiZulu, isiNdebele, and Siswati). By explicitly modelling the subword structure of language during training, these models learn optimal task-specific subword units. Francois Meyer develops three variants of subword segmental models, respectively for the tasks of language modelling, machine translation, and data-to-text generation. Across these tasks and for all four Nguni languages, subword segmental modelling consistently equals or outperforms standard models. Its performance gains are greatest for extremely low-resource languages such as Siswati. Through linguistically informed evaluations, the thesis shows that subword segmental modelling successfully acquires particular aspects of Nguni-language morphology. Subword segmental modelling offers a promising new approach to text generation for low-resource, morphologically rich languages.

*Supervisor:* Dr J Buys (Computer Science)

Meyer, Thomas Leenen  
Thesis Title:  *$(Z_2)^3$ -Graded contractions of simple lie algebras*

Thomas Meyer completed their BSc, BSc (Hons), and MSc qualifications at UCT before beginning their PhD in 2022.

Thomas Meyer's thesis studies algebraic objects called graded contractions. These objects use a modification of the Lie bracket on homogenous elements, to create new Lie algebras. The graded contractions are classified up to three different notions of equivalence in order to describe the properties of the Lie algebras which arise.

*Supervisor:* Dr J Sánchez-Ortega (Mathematics)

Moges, Henok Tenaw  
Thesis Title: *Hamiltonian Chaos: from galactic dynamics to plasma physics*

Henok Tenaw Moges obtained a BSc in Applied Mathematics from the University of Gondar and an MSc in Numerical Analysis from the Bahir Dar University (Ethiopia). He later lectured at Woldia University. He obtained another MSc degree from UCT in 2020 and began his PhD studies that same year.

Henok Tenaw Moges's PhD thesis primarily focuses on the numerical investigation of two physical problems connected by their shared Hamiltonian mathematical formalism: the extent of chaos in Hamiltonian systems governing the motion of stars in barred galaxies and the behaviour of charged particles in plasma models. Beyond these, his work explores the long-term diffusion and transport properties and chaotic behaviour of multidimensional maps. Furthermore, he conducted the first detailed analysis of the performance of the generalized alignment index (GALI) method of chaos detection in dissipative systems, including those systems exhibiting hyperchaotic motion. While each project required distinct methods to capture the unique dynamics of each system, the overarching goal remained to advance our understanding of chaotic systems through efficient numerical tools. His systematic computational approach provided fresh insights into the influence of chaos across a range of dynamical systems.

*Supervisor:* Professor H Skokos (Mathematics and Applied Mathematics)

Muguru, Kedibone Gudani  
Thesis Title: *Design, synthesis and analysis of Isorecticular, 2-periodic, Co(II)/Mn(II) mixed- and Zn(II) single-ligand metal-organic frameworks for sorption of energy- and environmentally-relevant molecules*

Kedibone Muguru completed her BSc and BSc (Hons) qualifications at UCT and began full-time study towards her PhD in 2020.

Energy and environmental challenges, such as depleting fossil

fuels, greenhouse gas emissions, and diminishing freshwater resources, require innovative solutions. Kedibone Muguru's thesis investigates single- and mixed-ligand metal-organic frameworks (MOFs) as solid-state sorbents for gases including nitrogen, carbon dioxide, hydrogen, and water vapour. By introducing flexibility in organic ligands, the study enhances the ability of MOFs to respond dynamically to their physical environments. The research evaluates MOF porosity and sorption efficiency, revealing that the mixed-ligand MOFs undergo temperature- and pressure-induced phase transitions, achieving high carbon dioxide and water vapour sorption efficiency. In contrast, the single-ligand MOFs demonstrate variations in sorption performance due to differences in their degree of interpenetration, with some being interpenetrated, while others are not. This highlights the significant influence of structural design on sorption performance. Overall, the work provides valuable insights into designing MOFs to address pressing energy and environmental challenges.

*Supervisor:* Associate Professor C Oliver (Chemistry)  
*Co-supervisor:* Dr W Mogodi (Chemistry)

Ndlovu, Joseph Buyani  
 Thesis Title: *Development of novel replicating plant expression vectors and a plant-produced mRNA vaccine candidate against beak and feather disease virus*

Joseph Buyani Ndlovu completed his BSc and BSc (Hons) qualifications at the University of KwaZulu-Natal, and an MSc qualification at Stellenbosch University. He began full-time study towards his PhD in 2019.

Joseph Buyani Ndlovu's thesis reports on the development and evaluation of the novel plant expression vectors for high-level production of recombinant proteins in plants, as well as the production of an mRNA vaccine candidate against the beak and feather disease virus (BFDV), which infects wild and captive parrot species and threatens them with extinction. Protein expression

analyses reveal that six novel vectors demonstrate high protein expression levels and promise to be valuable tools in biopharming research for producing reagents and pharmaceuticals. The BFDV mRNA vaccine candidate was evaluated for immunogenicity in African grey parrot chicks and demonstrates strong immunogenicity and potential to protect the birds against the viral disease. These findings are a significant step forward towards developing a commercial vaccine that could protect the parrots from succumbing to the disease caused by the virus.

*Supervisor:* Associate Professor I Hitzeroth (Molecular and Cell Biology)  
*Co-supervisors:* Dr A van Zyl (Chemical Engineering); Professor E Rybicki (Molecular and Cell Biology)

Nguimeya Tematio, Gaël Pacome  
 Thesis Title: *Modelling of Berry phase and Fermi-level topologies for emergent quantum phenomena prediction in selected solid state systems*

Gaël-Pacôme Nguimeya Tematio holds a BSc and MSc from the University of Dschang in Cameroon. His academic journey reflects a commitment to advancing material science and computational modeling, culminating in his doctoral research at UCT.

Gaël-Pacôme Nguimeya Tematio's thesis investigates the electronic and topological properties of SrSi<sub>2</sub>, CoSi, and NbP under external influences like tensile strain and electric fields. Using density functional theory and tight-binding models, he explores quantum phase transitions and their implications for emergent quantum states. Key findings include strain-induced topological transitions in SrSi<sub>2</sub>, tunable electronic properties in CoSi, and the appearance of a new topological phase in NbP. These results enhance understanding of topological phase behavior and provide a pathway for designing materials with tailored quantum properties. His work bridges theoretical and computational approaches, advancing predictive modeling of quantum phenomena and enabling applications in quantum

computing and advanced materials engineering.

*Supervisor:* Dr T Salagaram (Physics)  
*Co-supervisor:* Dr A Ukpog (University of KwaZulu Natal, Physics)

Padayachee, Kailen  
 Thesis Title: *A multi-scale analysis of organochlorine pesticide contamination in raptor populations: research effort, historical trends, and current concentrations*

Kailen Padayachee completed his National Diploma in Nature Conservation in 2009, his BTech in Nature Conservation in 2013 and his MTech in Nature Conservation in 2017, all from the Tshwane University of Technology. He began full-time study towards his MSc in 2019 and upgraded to PhD in 2021.

Kailen Padayachee's thesis reports on monitoring effort and concentrations of two organochlorine pesticides, Dichlordiphenyltrichloroethane (DDT) and dieldrin, in birds of prey globally. He found monitoring of these pesticides in raptors showed a heavy geographic bias towards the Global North. While he demonstrated the success of the Stockholm Convention at reducing levels of DDT in the Global North, he showed that the lack of monitoring in the Global South has reduced our ability to evaluate the success of such policies in regions allowing restricted DDT use. Additionally, his thesis investigated contemporary pesticide levels in a migratory raptor to South Africa and demonstrated that, while overall DDT and dieldrin concentrations were low, there continue to be individuals with relatively high concentrations. His findings should ultimately be viewed as a success story, showing that, when implemented well, international agreements can achieve their desired effect.

*Supervisor:* A/Professor A Amar (Biological Sciences)  
*Co-supervisor:* A/Professor C Reynolds (University of the Witwatersrand, School of Animal, Plant and Environmental Sciences)

Tebele, Shandry Mmasetshaba

Thesis Title: *The functional role of root-associated microbiome and metabolome of Myrothamnus flabellifolia*

Shandry Tebele obtained her undergraduate and master's degrees in Biotechnology at the University of Johannesburg. In 2020, she transitioned to UCT to undertake a PhD in the Department of Molecular and Cell Biology.

Shandry Tebele's thesis focused on the intricate interactions between the microbiome and roots of *Myrothamnus flabellifolia*, aiming to identify desiccation-tolerant bacterial and fungal species and determine their contribution to the host plant. Her research demonstrated that roots, rhizosphere, and bulk soil harbor desiccation-tolerant microbes, which in turn possibly slow the drying rate, and provide nutrients and hormones to roots. Metatranscriptomic analysis of root-associated bacteria during dehydration showed striking similarity in genes expressed to those utilized by the host, suggesting co-evolution of defense mechanisms. The study further explored metabolites in rhizosphere and those produced by rhizospheric bacteria, identified candidates that may function to protect the roots. Finally, she demonstrated that priming of maize seeds with rhizospheric bacteria from *M. flabellifolia* improved drought tolerance in seedlings. Collectively, this work contributes significantly to the understanding of whole plant desiccation tolerance and paves the way for development of biostimulants that facilitate drought tolerance in crops.

*Supervisor:* Professor J Farrant  
(Molecular and Cell Biology)

Thiart, Taella Morgan

Thesis Title: *Synthesis & evaluation of collectors designed for improved sperrylite recovery*

Taella Thiart obtained her BSc and BSc (Hons) degrees at UCT and began her PhD studies in 2020.

Taella Thiart's thesis addresses the need in the platinum mining industry for more effective recovery of sperrylite, a platinum-containing mineral. The recovery is achieved by a flotation process which involves suspension of crushed crude ore in alkali, addition of an amphiphilic collector which adsorbs to the mineral via its polar head-group, then bubbling of air through the mixture to float the mineral complex via adhesion of air bubbles to the non-polar tail. The thesis describes the design, synthesis and testing of novel collectors, and develops a QSAR strategy for identifying new collector classes from a wide range of possible molecular structures. This comprehensive approach, including determining percentage recovery by microflotation and microcalorimetry, led to discovery of a new class of collectors bearing two polar dithiocarbonate (xanthate) head-groups. One of these collectors gave the best recovery of sperrylite yet reported and has been recommended for further testing at industrial scale.

*Supervisor:* Emeritus A/Professor D Gammon (Chemistry)  
*Co-supervisor:* A/Professor B McFadzean (Chemical Engineering)

Thomas, Cheryl Marlene

Thesis Title: *Benthic and pelagic responses to endobenthic bioturbator (Kraussillichirus kraussi) density, temperature and eutrophication in a global change mesocosm experiment*

Cheryl Thomas holds a BSc (Hons) from Potchefstroom University and a Master's Degree specialising in Marine and Coastal Management from the University of Natal. She began her PhD studies in the Department of Biological Sciences at UCT in 2018.

Cheryl Thomas's thesis focuses on identifying resilience-enhancing processes to address the challenge of

coastal degradation caused by multi-stressor global change processes. In this context, her study investigated the robustness of sandprawn benthic-pelagic coupling under future warming and eutrophication scenarios, and its impact on ecosystem functioning and services. Findings highlight the resilience of sandprawn bioturbation under simulated future global change scenarios, and the potential for sandprawns to enhance coastal ecosystem resilience to degradation. Sandprawns specifically prevented ecosystem state switches to extreme eutrophy and nanophytoplankton blooms, while suppressing harmful cyanobacterial proliferation. Additionally, sandprawn presence facilitated stable benthic conditions for invertebrate communities. Overall, the research highlights the importance of nature-based processes that can combat global change challenges, while also emphasising the need to conserve and manage sandprawn populations so that they are included in resilience-based ecosystem management.

*Supervisor:* Associate Professor D Pillay  
(Biological Science)  
*Co-supervisors:* Dr H Marco (Biological Science); Dr E Rocke (Oceanography)

Tinarwo, Munyaradzi

Thesis Title: *Development of plant-produced African horse sickness virus diagnostic reagents and candidate mRNA vaccine*

Munyaradzi Tinarwo holds a BTech (Hons) in Biotechnology from Chinhoyi University of Technology, Zimbabwe, and a BSc (Hons) in Microbiology from the University of North West, South Africa. Before joining UCT, he worked as a mathematics and science teacher in Johannesburg.

Munyaradzi Tinarwo's thesis focuses on developing a candidate mRNA vaccine for African horse sickness virus, and a diagnostic ELISA capable of distinguishing between infected and vaccinated animals. Both were produced using a plant-based expression system. The mRNA vaccine candidate demonstrated immunogenicity in a mouse model, while the diagnostic

ELISA successfully differentiated between serum from infected and vaccinated horses. These advancements address the devastating effects of African horse sickness on equine populations and its economic impact in endemic regions. The plant-based system offers a scalable, cost-effective, and sustainable alternative to traditional methods. Future studies will focus on evaluating the mRNA vaccine's safety, efficacy, and immunogenicity in horses and optimizing diagnostic reagents for field applications. This work will lay the groundwork for innovative solutions to overcome the limitations of current commercial vaccines and diagnostics, providing a pathway for improved disease management and prevention strategies globally.

*Supervisor:* Professor E Rybicki  
(Molecular and Cell Biology)

*Co-supervisor:* Dr A Meyers (Molecular and Cell Biology); Associate Professor I Hitzeroth (Molecular and Cell Biology); Dr S Mbewana (Molecular and Cell Biology)

Wilson, Tayla Lee

Thesis Title: *Development and application of the CL&Pol polarisable force field for ionic liquid-based electrolytes*

Tayla Wilson completed her BSc, BSc Honours and MSc degrees at UCT, and began full-time study towards her PhD in 2021.

Tayla Wilson's thesis reports the application and development of molecular dynamics computer simulations to predict thermodynamic and transport properties of ionic liquid-based electrolytes. Ionic liquids are solvents that consist entirely of ions, which have remarkable properties that motivate their consideration as electrolytes in next-generation batteries. The accuracy and precision of calculated properties were assessed to validate the methodology. Correlations between different properties were shown to be present, which not only further validates the accuracy of the simulations, but can also be used to highlight outliers where improvements to the procedure or underlying mathematical model that describes the intermolecular interactions, are warranted. Considering the latter, a method was then developed that increases the reliability of first-principles quantum mechanics-based calculations for quantifying the strength and nature of specific intermolecular interactions and applied to present a more physically sound description of the interaction potential that can be used in these simulations.

*Supervisor:* Dr G Venter (Chemistry)

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## HISTORICAL SKETCH

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Founded as the South African College (a boys' school that aimed to provide higher education as well) in 1829, the University was established as the University of Cape Town in 1918.

The early history was one of great expectations and hard times and it was not until the early years of the twentieth century that the University was developed into a fully-fledged tertiary institution. A significant and pioneering development in the 19th century was the admission of women as degree students in 1886, many years ahead of most universities in the world.

At the start of the 20th century the University incorporated the Diocesan College, the teacher training classes of the Normal College, the South African College of Music and the Cape Town Schools of Fine Art and Architecture.

The Medical School was established and in the 1920s the University began a partnership with the local health authority (now the Provincial Government's health department) that saw the Medical School move from the Hiddingh Campus and the Green Point Somerset Hospital to Observatory (the rest of UCT's Upper Campus moved from Hiddingh to its present site, on part of Cecil Rhodes' estate, in 1928). This partnership allowed for the construction of the first Groote Schuur Hospital on a University site. The partnership continues to this day and now involves not only Groote Schuur as a teaching hospital but Red Cross Children's Hospital, Valkenberg and a growing number of primary health care sites.

The period between the end of World War II and 1994 was marked by two themes. Firstly, the University recognised that if it was to be fully South African, it would have to move beyond academic non-segregation to be fully inclusive. It would have to face the consequential and increasing clashes with a government determined to legislate for segregation and enforce the doctrine of apartheid. And secondly, the University intended to transform into a leading research institution.

Before World War II, the University was largely a teaching university and its students were mostly undergraduates. The research undertaken was sporadic, though in some cases notable. A research committee was appointed for the first time in 1945. The next 75 years saw a great expansion of research and scholarly work such that the UCT of 2014 has a greater proportion of highly rated researchers and gains significantly more research grants and awards than any other South African University.

The 1980s and 1990s were characterized by the deliberate and planned transformation of the student body. This was aided by the establishment of the Academic Development Programme aimed at helping students from disadvantaged educational and social backgrounds to succeed and the desegregation of student residences. As a result, a student body that was 90% white in 1979, when UCT marked its 150th anniversary, is in 2014 more than 50% black. The total student enrolment of just above 26 000, includes international students drawn from over 100 countries, a significant proportion of which are from SADC states. Particular emphasis is placed on postgraduate studies and more than 20% of these students will be enrolled in master's and doctoral programmes. A growing number of postdoctoral fellows contribute substantially to the research endeavours and reputation of the University (UCT has more than a third of the total number of post docs in South Africa).

UCT continues to work towards its goal to be Africa's leading research university. Its success can be measured by the scope of study it offers and the calibre of its graduates.

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## VISION AND MISSION

### UNIVERSITY OF CAPE TOWN

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#### **Vision**

An inclusive and engaged research-intensive African university that inspires creativity through outstanding achievements in learning, discovery and citizenship; enhancing the lives of its students and staff, advancing a more equitable and sustainable social order and influencing the global higher education landscape.

#### **Mission**

UCT is committed to engaging with the key issues of our natural and social worlds through outstanding teaching, research and scholarship. We seek to advance the status and distinctiveness of scholarship in Africa through building strategic partnerships across the continent, the global south and the rest of the world.

UCT provides a vibrant and supportive intellectual environment that attracts and connects people from all over the world.

We aim to produce graduates and future leaders who are influential locally and globally. Our qualifications are locally applicable and internationally acclaimed, underpinned by values of engaged citizenship and social justice. Our scholarship and research have a positive impact on our society and our environment.

We will actively advance the pace of transformation within our University and beyond, nurturing an inclusive institutional culture which embraces diversity.

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### ***Vice-Chancellor***

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Today is not the end of your relationship with the university but the beginning of a new phase in your continuing relationship with UCT, one that you share with the global UCT community of over 200 000 alumni. We want to celebrate your milestones, share opportunities, and keep you connected with classmates, mentors, and the university. But to do that, we need one simple thing from you :

Update your details today!



To remain in contact with former UCT classmates and to keep abreast of important developments taking place at your alma mater, make sure that you update your contact details on our website: [www.alumni@uct.ac.za](mailto:www.alumni@uct.ac.za). Here are some of the other ways you can stay in touch with us:

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- Participate in the AGM of Convocation
- Find and follow us on social media @UCTalumni
- Visit the Alumni Engagement team in the Old Admin Building, located on UCT Lower Campus
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UCT benefits from a global network of alumni ambassadors, chapters and affinity groups, with an increasing number of volunteer networks across Africa. Our international UCT offices are focal points for leveraging institutional and research relationships, as well as donor opportunities. You can connect with one of our regional offices:

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The Development and Alumni Department looks forward to meeting you. Join us at one of the many alumni events hosted around the world, on campus at a UCT public lecture, at UCT Summer School or at your class reunion. Let's stay connected.