

FACULTY OF SCIENCE

DEAN: PROFESSOR N CHETTY BSc Hons (Natal) MS PhD (U. Illinois Urbana-Champaign) MASSAf MSAIP

Master of Science

BEZUIDENHOUT, Hadrian (*with Distinction*) *Physics*
DISSERTATION: Structured light for high-dimensional diffractive computing

BURGER, Carel Johannes *Economic Geology*
RESEARCH REPORT: Structural controls on the ore emplacement at the tetelo copper prospect, Northwestern Angola

CHAUKE, Edwin *eScience*
RESEARCH REPORT: Comparative analysis of model structure-based and prediction-based post-hoc interpretability methods for credit risk assessment

CHERNET, Helen Asamnew *Chemistry*
DISSERTATION: MOF-derived high-entropy spinel oxide and cobalt-based electrocatalysts for rechargeable zinc-air batteries and water-splitting

COCOTOS, Vasilios Seraphim (*with Distinction*) *Physics*
DISSERTATION: Complex light in complex media

DANDALA, Odwa (*with Distinction*) *Geography, Archaeology and Environmental Studies*
DISSERTATION: Testing the integration of spatial analysis and Internet of Things (IoT) for monitoring African wild dog (*Lycaon pictus*) in Hluhluwe–Imfolozi Park

DAVIES, Caitlin Julia *Molecular and Cell Biology*
DISSERTATION: Development of a dose-compatible surface overlay bioassay for *Helicoverpa armigera* (Hübner, 1809)

DAYA, Krupa *Molecular and Cell Biology*
DISSERTATION: Genome assembly, annotation, and comparative analysis of *Cannabis sativa* landrace Durban Poison

DZEGERE, Zandile Maxie *Geology*
DISSERTATION: Development of a framework for identifying post-mining opportunities in abandoned and closed mines in South Africa

FRASCO, Sergio Aaron *Computer Science*
DISSERTATION: Learning world value functions with vision models and successor representations

GELO, Ebenezer Dambala (*with Distinction*) *Computer Science*
DISSERTATION: Feedback-driven behavioural shaping in offline reinforcement learning for safety-critical environments

GOVENDER, Kaydi Olyssa (*with Distinction*) *Geology*
DISSERTATION: Constraining the magma sources and tectonic setting of the Kunene AMCG complex by radiogenic and stable isotope geochemistry

GRACA, Richard Alexander Elrick (*with Distinction*) *Molecular and Cell Biology*

DISSERTATION: Recombinant *Klebsiella pneumoniae* 3"(9) Aminoglycoside Adenylyltransferase: structural and functional insights

GUMEDE, Khaya Natasha *Environmental Sciences*
RESEARCH REPORT: Feasibility and stakeholder perceptions of drone integration for flood assessment in eThekweni Municipality

GUMEDE, Philiswa Nokwethemba *Environmental Sciences*
RESEARCH REPORT: A study on local community members' perceptions on illegal dumping of solid waste in Lenasia, Johannesburg, South Africa

HLATSHWAYO, Zamangwane *Chemistry*
DISSERTATION: Improving the properties of WS2 for room temperature detection of ammonia

JALISA, Luvuyo Vincent *Geographical Information Systems and Remote Sensing*
RESEARCH REPORT: Using GIS and remote sensing data, along with multi-criteria analysis and the analytical hierarchy process for the selection of sites for faecal sludge treatment plants: a case study conducted in eThekweni, South Africa

JELE, Xolile Fortunate *Environmental Sciences*
RESEARCH REPORT: Assessing the impacts of climate change on airport systems in South Africa

KAHN, Erin Tayla (with Distinction) *Molecular and Cell Biology*
DISSERTATION: Exploring genetic signatures of white blood cell count and IL-8 production in COVID-19 and HIV-1 disease, and in-depth analysis of select variants/genes in black South African populations using available whole genome sequencing data

KUMALO, Lindani Nokukhanya-Pearl *Environmental Sciences*
RESEARCH REPORT: A study of knowledge, skills and abilities in air quality management amongst environmental health graduates in South Africa

LAFFERTY, Tristen Ray (with Distinction) *Palaeontology*
DISSERTATION: Description and phylogeny of lower Abrahamskraal Formation dinocephalians and other therapsid material

LAMPARELLI, Gabriella Valeria (with Distinction) *Animal, Plant and Environmental Sciences*
DISSERTATION: Auditory morphology of *Otomys unisulcatus* (bush Karoo rat) in South African localities differing in climate and habitat features

LANGA, Grace Nodoli *Environmental Sciences*
RESEARCH REPORT: Assessing the greenhouse gas emissions of mining activities: a case study in gold mining

LEROTHOLI, Avuzwa *Data Science*
RESEARCH REPORT: Transparent environment, social, and governance (ESG) risk score prediction using machine learning and explainable AI

LESOLE, Palesa Felicity (with Distinction) *Molecular and Cell Biology*
DISSERTATION: Evaluation of the use of count-based methods for alternative splicing analysis in monocyte-to-macrophage differentiation

MACHERE, Makatleho *Environmental Sciences*
RESEARCH REPORT: The role of institutional investors in promoting environmental social and governance in South Africa

MACHETHE, Katlego Matome Innocent (with Distinction) *Physics*
DISSERTATION: A study of $t\bar{t}Z$ couplings at future electron-proton collider

MAHARAJ, Shrëyan *Animal, Plant and Environmental Sciences*

DISSERTATION: Evaluating the water use of *Arundo donax* and *Phragmites australis* from leaf to stand level

MAIMANE, Mark Kalepe *Geographical Information Systems and Remote Sensing*
RESEARCH REPORT: Landslide susceptibility mapping using geospatial techniques for eThekweni, KwaZulu-Natal, South Africa

MAKHAVHU, Rendani *Artificial Intelligence*
RESEARCH REPORT: Dynamic multi-trait automated essay scoring

MAKOENG, Moloko Janet *Geography, Archaeology and Environmental Studies*
DISSERTATION: A comprehensive assessment of sanitation conditions and malodour impacts among households in Hammanskraal

MAKOLA, Khotso Emmanuel (*with Distinction*) *Mathematics*
DISSERTATION: On lightlike hypersurfaces of indefinite kähler manifolds

MAKUMULE, Tshilidzi *Environmental Sciences*
RESEARCH REPORT: Evaluation of waste reduction strategies in the logistics sector: a case study on packaging and material reuse

MALINDI, Nomali Simphiwe *Animal, Plant and Environmental Sciences*
DISSERTATION: A taxonomic revision of the genus *Sesbania* (Sesbanieae: Fabaceae) in Southern Africa, including introduced species

MANGANYI, Vukheta Solomon *Environmental Sciences*
RESEARCH REPORT: Informal settlements, surface water resources, and climate resilience strategies nexus: a case study of Ivory Park, Johannesburg

MAROTE, Tsitsi Primrose (*with Distinction*) *Computational and Applied Mathematics*
DISSERTATION: Network analysis of a large and complex hub-and-spoke e-commerce network to enable efficient fulfillment of online orders

MASEKO, Mbuso Bandile (*with Distinction*) *Computer Science*
DISSERTATION: Adaptive Bayesian leaves in sum product networks

MATHIBE, Tirwane Denis *Environmental Sciences*
RESEARCH REPORT: Assessment of households organic waste separation: the case of Alexandra township, Johannesburg

MATLHAKOLA, Ofentse Octovia (*with Distinction*) *Physics*
DISSERTATION: Probing the dead cone using the primary Lund plane

MATLOU, Karabo *Environmental Sciences*
RESEARCH REPORT: Perspectives on the role of consumer education in household food waste reduction: a case study of Rosettenville, Johannesburg South

MBAZO, Matilda *Geography, Archaeology and Environmental Studies*
DISSERTATION: Quantifying the effects of multiple disturbances on woody plant cover in a Marula-Knobthorn savanna

MBUYISWA, Njokweni Wongalethu (*with Distinction*) *Physics*
DISSERTATION: ATLAS searches for di-photon resonance in association with leptons or b-jets and constraints on SMEFT from the $h \rightarrow Z\gamma$ channel at the LHC

MLOTHA, Mbongeni *Robotics*
RESEARCH REPORT: Dynamic job recommendations using agentic retrieval-augmented generation

MODISAOTSILE, Masego *Interdisciplinary Global Change Studies*

RESEARCH REPORT: Exploring socio-ecological impacts of green hydrogen development: the case of Boegoebaai, South Africa

MOODLEY, Denisha

Environmental Sciences

RESEARCH REPORT: An assessment of the institutional and policy frameworks for the management of untreated sewage in Gauteng Province, South Africa: a study of Tembisa Township

MOODLEY, Nevisha (with Distinction)

Molecular and Cell Biology

DISSERTATION: The biophysicochemical characterisation of recombinant glutathione S-transferase from *Plasmodium berghei*, a murine model of human malaria: insights from empirical and computational methods

MOOSA, Fariya (with Distinction)

Chemistry

DISSERTATION: Investigation of Mn_xNi_{1-x} electrocatalysts for the oxygen evolution reaction in alkaline media

MORWAMOCHE, Sibongile Angelic Hlageng

Geographical Information Systems and Remote Sensing

RESEARCH REPORT: Analysing the dynamics of a sector induced informal settlement using machine learning algorithms: a case study of "Mapoteng extension" in Kathu, Northern Cape

MOTLALE, Lindokuhle Venessa Jessica

Geography, Archaeology and Environmental Studies

DISSERTATION: Amphibian diversity in ephemeral pans of the KNP, South Africa: traditional meets modern monitoring tools

MPHELA, Tiisetso Matlhatsi (with Distinction)

Animal, Plant and Environmental Sciences

DISSERTATION: Investigating the impacts of climate change and fire management on fire trends in forestry plantations in South Africa

MPOPO, Mapaseka Mary

Environmental Sciences

RESEARCH REPORT: The role of environmental, social, and governance in reducing environmental impacts and promoting sustainability in food manufacturing in South Africa

MTHEMBU, Ntombifuthi Gloria (with Distinction)

Chemistry

DISSERTATION: Technical development of passive samplers deployment systems for environmental risk assessment with phthalate esters in water as model compounds

MUDZVENGI, Triphin

eScience

RESEARCH REPORT: Neural networks interpretability in insurance claims

MUKANSI, Vutlhari Lulama

Interdisciplinary Global Change Studies

RESEARCH REPORT: Surviving water stress: the ripple effects of drought for businesses in a water-stressed city

MUNHUWENHAMO, Isaxon Tangawa Fungwa (with Distinction)

Geography, Archaeology and Environmental Studies

DISSERTATION: Maize crop yield prediction using deep learning (DL) approaches: a case of smallholder farming system in Chivi district, Zimbabwe

MUTSONZIWA, Natalie Rutendo (with Distinction)

eScience

RESEARCH REPORT: Leveraging machine learning tools to predict the financial health of individuals in South Africa: a data-driven approach to socioeconomic insights

NDLALANE, Simmera Gina (with Distinction)

Computational and Applied Mathematics

DISSERTATION: Enhancing blood supply chain: mathematical modelling and optimisation techniques for blood allocation

NELSON, Robyn Frances

Animal, Plant and Environmental Sciences

DISSERTATION: Exploring the synergistic effects of climate change and land use transformation on the range expansion of invasive avian species across South African landscapes

NENGOVHELA, Tsireledzo

Molecular and Cell Biology

DISSERTATION: Effect of inoculation of maize seeds with xerophyte-associated microbial consortia on germination, moisture stress tolerance, yield and vegetative growth parameters

NOTHLAWALA, Fazilah (*with Distinction*)

Physics

DISSERTATION: Quantum ghost imaging with structured light

NYABADZA, Caston Itayi

Computer Science

DISSERTATION: Modelling survival through composition of reinforcement learning policies

NYALUNGU, Melissa (*with Distinction*)

Molecular and Cell Biology

DISSERTATION: Investigating the effects of tyrosine 342 phosphorylation on the structure and function of the FOXP3 FHD

OAGENG, Smangaliso Gift

Molecular and Cell Biology

DISSERTATION: Two-sample Mendelian randomisation on breast cancer using a black South African cohort

PAILA, David Kgwaritle

Geography, Archaeology and Environmental Studies

DISSERTATION: A comprehensive analysis of the impact of mining activities on ground water quality in South Africa: a case study of Thorncliffe and Magareng chrome mines

PHEME, Johanna Sejabaledi

Geographical Information Systems and Remote Sensing

RESEARCH REPORT: Using remotely sensed data to monitor the trends in surface water around an abandoned colliery in the Ermelo area of Mpumalanga, South Africa

PHILIP, Navin Ninan (*with Distinction*)

Mathematics

DISSERTATION: Topics in modal and temporal inference

PILLAY, Coral Garnet (*with Distinction*)

Physics

DISSERTATION: From simulations to observations: the detectability of dual active galactic nuclei in MeerKAT+ and SKA surveys

RAFUNDISANI, Mashudu

Geography, Archaeology and Environmental Studies

DISSERTATION: From traditional to water resilient cities: the role of spatial planning in a changing climate: a study of the City of Johannesburg, South Africa

RAMLALL, Prianca

Molecular and Cell Biology

DISSERTATION: An integrative analysis of isoform expression and regulatory mechanisms of PPAR γ

REDDY, Claire

Animal, Plant and Environmental Sciences

DISSERTATION: Olfactory cues as potential enrichment in captive big cats

SETSHEDI, Katlego Omphile

Medical Physics

RESEARCH REPORT: Accuracy and sensitivity of patient-specific quality assurance approaches to volumetric modulated arc therapy treatment of nasopharynx

SITHOLE, Ingrid Happy

Environmental Sciences

RESEARCH REPORT: Possible challenges of pans 1(b) and 2(a) reconstruction and their ecological effectiveness at Mafube coal mine

STONE, Alexandra Kinsley (*with Distinction*)

Archaeology

DISSERTATION: A social and spatial history of pharmacy in Johannesburg, 1894-1939

SUDER, Muhammad Ibrahim (*with Distinction*)

Computer Science

DISSERTATION: Decoupling perception from control in legged locomotion

TSHISHONGA, Ngelekanyo

Environmental Sciences

RESEARCH REPORT: Analysis of community perceptions of indoor air quality and dust in Johannesburg

YIP, Si Lin (*with Distinction*)

Molecular and Cell Biology

DISSERTATION: Single-cell RNA sequencing analysis of colorectal cancer organoids and primary tissues

ZONDI, Hermina Kebabope

Environmental Sciences

RESEARCH REPORT: Residents' perceptions of environmental pollution and health risks from the Soshanguve landfill, South Africa

Bachelor of Science Honours

ALLOYS, Jerry Tochukwu

Environmental Studies

BAEPANE, Amantle Merlyn

Geology

BUDELI, Mukhethwa (*with Distinction*)

Mathematics

BUTHELEZI, Kgomotso Sifiso

Mathematics

DLAMINI, McEbis Abundance

Mathematical Sciences

DLAMINI, Nompumelelo

Environmental Studies

DUBE, Nokuthula

Chemistry

GABAOEWE, Kgosi

Big Data Analytics

GOVENDER, Keane

Microbiology and Biotechnology

HLUBI, Lindelwa Zama

Animal, Plant and Environmental Sciences

KADIRAMWANDO, Nicole Rumbidzai

Genetics and Developmental Biology

KAMAMBO, Panache' Dariel

Chemistry

KHOSANA, Seolebaleng Keneilwe

Animal, Plant and Environmental Sciences

KODZE, Blessing

Computer Science

LEBOHO, Thapelo Gerry

Physics

LENEPA, Lintle Paballo (*with Distinction*)

Geographic Information System and Remote Sensing

LETS'OARA, Boke

Computer Science

MABIJA, Kharendwe (*with Distinction*)

Animal, Plant and Environmental Sciences

MADONSELA, Nompumelelo

Psychology

MAHLANGU, Siyabonga Sphephile

Animal, Plant and Environmental Sciences

MASEKO, Mamazibuko Sheroy

Environmental Studies

MASHAU, Mulalo

Animal, Plant and Environmental Sciences

MATANDELA , Afika Amahle	<i>Animal, Plant and Environmental Sciences</i>
MAZIBENI , Buhle Nicole Nyiko	<i>Animal, Plant and Environmental Sciences</i>
MDLETSHE , Bonisiwe	<i>Computer Science</i>
MELETSE , Brudance Tlou (<i>with Distinction</i>)	<i>Geographic Information System and Remote Sensing</i>
MFUNDA , Esihle	<i>Biochemistry and Cell Biology</i>
MODIBANE , Oreneile Cynthia	<i>Animal, Plant and Environmental Sciences</i>
MOHAPELOA , Karabo (<i>with Distinction</i>)	<i>Big Data Analytics</i>
MOSES , Lolita Robyn	<i>Genetics and Developmental Biology</i>
MOTAFHUNWA , Phetogo	<i>Chemistry</i>
MTHETHWA , Mngqobi Trueman	<i>Geology</i>
MUDAU , Leon Molwedi	<i>Chemistry</i>
MUEDI , Mukonazwothe	<i>Geology</i>
MUKWEVHO , Khathutshelo Marvin	<i>Geophysics</i>
NENUNGWI , Ankonisaho	<i>Computational and Applied Mathematics</i>
NHLAPO , Sihle Pretty	<i>Geography</i>
PADIMA , Sheofatso	<i>Geography</i>
PILLAY , Dhasivan Ravindran	<i>Mathematical Sciences</i>
RAKGOPE , Kabelo Reliance	<i>Mathematics</i>
RAMALOKO , Vonani Honest	<i>Archaeology</i>
RAMUKOSI , Vhutshilo Knowledge	<i>Computer Science</i>
RELE , Mmabotle	<i>Geology</i>
SENGO , Siphesihle Henry	<i>Chemistry</i>
SHANGASE , Mongezi Lusanda	<i>Animal, Plant and Environmental Sciences</i>
SIBUYI , Lecrucious Fikile	<i>Microbiology and Biotechnology</i>
SITHOLE , Sipehelele	<i>Animal, Plant and Environmental Sciences</i>
SITHOLE , Siphokazi Nkosingiphile	<i>Applied Bioinformatics</i>
TORO , Atlehang	<i>Animal, Plant and Environmental Sciences</i>

Bachelor of Science

ALIMASI, Yedidyah Kavango

BANDA, Wilfred Sibusiso

BARNES, Courtney Paige

CHINYAURO, Tadiwanashe Gladys

CWELE, Asanele Hlengiwe

FLARA, Azukise

GOHIL, Priyanka Shailendrasinh

GUMEDE, Andile Sean

GUMEDE, Hands Nokwazi

JIYANA, Nomvelo Angel

KAMAMBO, Panache' Dariel

KHUMALO, Junior Thabang

LESIBA, Panyasi Lehlohonolo

MAAKANA, Xongile

MACHEKE, Kamogelo Precious

MADIMA, Takalani Blessing

MAFIKA, Thamsanqa Sinclair

MAGABE, Kutullo Kokomane

MAGAGULA, Tegazi Precious

MAGAGULA, Zanele Success

MAHLANGU, Nombulelo Judith

MAHLANGU, Tshepiso Mathilda

MAHLAOLA, Thabiso Vincent

MAHLASE, Brilliant

MAKOALA, Bonolo

MAKUNYANE, Mohau Palesa

MALEBOGO, Leethee Kgalaletso

MALESA, Kgaogelo Rebecca

MANANA, Lubabalo

MAPHALAPHATHWA, Khakhu Jesica

MAPHUMULO, Awande Sizakele

MAPUMA, Aphiwe Zintle

MASEMOLA, Palesa Victoria

MASHA, Evah Morithi

MASINDI, Phionah

MASIZA, Kimberly Kgaugelo Boniswa

MATHAVHANA, Fulufhelo Atlanta

MDLELA, Emihle Anathi

MHLANGA, Monalisa Thando

MKALIPI, Philani Leonard

MKHIZE, Renkie Nyeleti

MKHONZA, Noluvo Andiswa

MLUNGWANA, Liyabona Onako

MNISI, Jabulile Peo

MOKOENA, Sphamandla

MOLOMO, Mary Tshegofatso

MOSES, Lollita Robyn

MOTHIBE, Boipelo Thudi

MOTHIBI, Makoena Donald

NDEBE, Lanet Sifiso

NDLOVU, Smiso

NENE, Silindokuhle

NETSHISAULU, Khuthadzo

NGCOBO, Minenhle

NGESI, Ayanda

NGIDI, Simama Notha

NGOMANE, Xolani

NGXOLA, Mbalentle

NHLAPO, Lethukuthula Gift

NKEPANG, Thapelo Gordon

NNDWAMATO, Aluwani Michelle

NTSHANGASE, Siyabonga Nkosinathi

PAMPIRI, Retshedisitswe

PHAHLA, Samkelo

PULE, Lethabo Calista

RADEBE, Nompumelelo

RAKGAJANE, Oratile Othelia

RAMARE, Makwenadi Marisa

SAMBATHA, Silindokuhle

SENYOKO, Reitumetse

SEWAHLA, Boikanyo Noah

SHONGWE, Mxolisi

SHONGWE, Sthembiso Jonathan

SIKHOSANA, Mncedisi Lindelwa

SIKOKO, Sinazo

TSHAYINGCA, Siyanda

TSHIVULE, Phathutshedzo

VHENGANI, Shudufhadzo

WARNEY, Loreenne Anelicia

WINDWAAI, Edmin-Lee Ettienne

ZONDO, Sphesihle Samkelo

Postgraduate Diploma in Science

DLAMINI , Perfect (<i>with Distinction</i>)	<i>Data Science</i>
MAGEZA , Rhulani Donney (<i>with Distinction</i>)	<i>Data Science</i>
MALULEKE , Xalati Devine (<i>with Distinction</i>)	<i>Data Science</i>
MEHLWANA , Bhekizenzo	<i>Innovation and Entrepreneurship</i>
MKAMO , Nkonzo (<i>with Distinction</i>)	<i>Data Science</i>
MOFOKENG , Nthabeleng Honey (<i>with Distinction</i>)	<i>Data Science</i>
MOHOHOMA , Gabriel Moloko (<i>with Distinction</i>)	<i>Data Science</i>
NKANI , Andisiwe Thato (<i>with Distinction</i>)	<i>Data Science</i>
NKOSI , Nokukhanya Felicia (<i>with Distinction</i>)	<i>Data Science</i>
NKOSI , Velaphi Thamsanqa (<i>with Distinction</i>)	<i>Data Science</i>
NTUMBA , Odia Abigail (<i>with Distinction</i>)	<i>Data Science</i>
PHIRI , Miriam (<i>with Distinction</i>)	<i>Data Science</i>
RAMALITSI , Thatayaone Khabane	<i>Innovation and Entrepreneurship</i>
SIBANYONI , Nompumelelo (<i>with Distinction</i>)	<i>Data Science</i>
THANGO , Zoleka (<i>with Distinction</i>)	<i>Data Science</i>