

Department of Physics
University of Johannesburg
PO Box 524
Auckland Park, 2006
South Africa

Tel.: (+27) 011 559 4751 (W)
Cell.: (+27) 072 494 5707
Fax: (+27) 011 559 2339
bpdoyle@uj.ac.za

Publications

91 refereed journal articles and 7 refereed conference proceedings
13 international conference oral or poster presentations (personally presented)¹
12 facility highlights and related articles
11 national conference oral or poster presentations (personally presented)

C2 rating from NRF: 1 January 2013 - 31 December 2018, renewed from 1 January 2019
h-index = 18 (Scopus), 19 (Google Scholar)
ORCID: 0000-0001-9832-4609

Scientific positions held

Associate Professor: Department of Physics, University of Johannesburg, Johannesburg (South Africa); 1st February 2019 - present

Senior Lecturer: Department of Physics, University of Johannesburg, Johannesburg (South Africa); 1st April 2010 – 31st January 2019

Lecturer: Department of Physics, University of Johannesburg, Johannesburg (South Africa); 1st February 2009 - 31st March 2010

Research Scientist: Beamline BEAR (ELETTRA), TASC-INFN Laboratory, Trieste (Italy); 1st December 2003 – 31st January 2009

Postdoctoral Fellow: Beamline BEAR (ELETTRA), TASC-INFN Laboratory, Trieste (Italy); 16th April 2003 - 30th November 2003

Postdoctoral Fellow: The Royal Institution of Great Britain, London (United Kingdom), seconded to Nuclear Resonance Group, European Synchrotron Radiation Facility (ESRF), Grenoble (France); 17th September 2002 - 13th March 2003

Postdoctoral Fellow: European Synchrotron Radiation Facility (ESRF), Grenoble (France); 12th September 1999 – 12th September 2002

¹ including those which also appear above as refereed publications.

Academic record

- PhD (Physics) 1995-2000, The University of the Witwatersrand, Johannesburg
Title of project: *Molecular Complexation and Defect Dynamics in Diamond by Particle-Solid Interactions*
- BSc(Hons.) Physics 1994, The University of the Witwatersrand, Johannesburg
- BSc Physics 1991-1993, The University of the Witwatersrand, Johannesburg

Research Interests

- 2D Dirac materials
- Electronic structure of complex systems, using angle-resolved photoemission
- Surface science of catalytically important systems
- Organic-metal interfaces
- Negative (zero) thermal expansion due to rare-earth valence transitions

Other scientific activities

- Reviewer for Physical Review Letters, Physical Review B, Journal of Chemical Physics, Journal of Physics and Chemistry of Solids, Journal of Vacuum Science and Technology B, Journal of Physical Chemistry, South African Institute of Physics conference proceedings
- Panel member: NRF Blue Skies Concept Notes 2015; NRF Competitive Programme for Rated Researchers (CPRR), Competitive Support for Unrated Researchers (CSUR) and Research Development Grant for Y-rated Researchers (RDGY) 2016, 2017; Thuthuka 2018
- Reviewer: NRF rating 2010; NRF SARCHI Chair 2015, 2018; NRF RDGY 2017
- Reviewer: EU Marie Curie Fellowship 2010
- Referee: PhD thesis, University of Pretoria 2016
- Member, Faculty of Science Ethics Committee: January 2017 to present
- Member, Faculty of Science Transformation Matters Committee: 2018 - 2019.
- Member, University Library Advisory Committee: March 2018 to present
- Organiser and speaker: XPS@UJ 2018 workshop: 30th-31st January 2018 (91 participants)
- Chair of Synchrotron Research Roadmap Implementation Committee (South Africa): February 2009 to September 2010 (previously Consulting Scientist: October 2007 to February 2009)
- Member: Synchrotron Research Roadmap Implementation Committee (South Africa): October 2010 to present
- Member of Scientific Task Force for scientific case for new Brazilian synchrotron radiation facility: LNLS-2: April 2009 to December 2009
- National Advisory committee: 9th World Conference on Neutron Radiography, 3rd-8th October 2010, Kwa Maritane, South Africa
- Principal author: *Feasibility Study for a South African Beamline at an International Synchrotron Radiation Source*, commissioned for the NRF, South Africa, November 2007

- Local organizing committee: Science at Synchrotrons II school and workshop, 9th-14th February 2009, Pretoria, South Africa
- Local organizing committee: Science @ Synchrotrons Business Plan and Strategic Planning workshop, 1st-2nd December 2011, Pretoria, South Africa
- Author: *Motivation for dedicated NRF funds for South African scientists to access the synchrotron radiation facility SOLEIL*, commissioned for the NRF, South Africa April 2009
- Invited talk: *La fisica e il karate: tameshiwari* (Physics and karate: tameshiwari), with A. Devivi, International Centre for Theoretical Physics (ICTP) Open Day 2008
- Keynote talk: *Physics at the "surface"*, Science at Synchrotrons, 12th February 2009
- Invited talk: *Organic-metal interfaces studied with soft x-rays*, Department of Chemistry, University of the Witwatersrand, 10th March 2010
- Invited talk: *An introduction to electron correlations studied using ARPES*, Mandelstam and National Institutes for Theoretical Physics, Department of Physics, University of the Witwatersrand, 22nd November 2016
- Invited talk: *An introduction to X-ray Photoelectron Spectroscopy (XPS)*, Centre for Catalysis Research, Department of Chemical Engineering, University of Cape Town, 22nd July 2019
- Series of informal postgraduate lectures on X-ray Photoelectron Spectroscopy, Centre for Catalysis Research, Department of Chemical Engineering, University of Cape Town, 24th to 26th July 2019

Postgraduate supervision

1. Prosper Ngabonziza, MSc, 2012 (with distinction and winner of S2A3 Bronze medal)
2. Mubarak Y.A. Yagoub, MSc, 2013 (with distinction)
3. Arlette Sohanfo Ngankeu, MSc, 2014
4. Mustafa A.M. Ahmed, MSc, 2016 (with distinction)
5. Teffo Seakamela, MPhil, 2016
6. Sifiso A. Mohotlhoane, MSc (Wits), 2016
7. Carmel Dansou, MSc, 2019 (with distinction)
8. Arnaud Nono Tchiomo, PhD, January 2017 to present
9. Carmel Dansou, PhD, July 2018 to present

Teaching

- Advanced Electromagnetism (Honours): 2009 - 2012
- Advanced Quantum Mechanics A (Honours): 2014 - 2019
- Advanced Mechanics (2nd year): 2009 – 2011
- Thermal Physics (2nd year): 2014 – 2018 (1 semester of year course)
- Introductory Physics A (1st year): 2012 - 2013
- Introductory Physics B (1st year): 2014 – 2015
- Introductory Physics B for Physics majors (1st year): 2016 - 2018

- Thermal energy systems and electromagnetism in energy systems (Masters in the Science and Organization of Nuclear Energy): 2010 - 2011 (short course)
- 2nd year practical course: 2010 (2nd semester)
- 1st year practical course: 2009 (2nd semester)
- External examiner for University of the Witwatersrand for 2011 - 2014: Surface Chemistry CHEM4000 (Honours)
- External examiner for University of Limpopo for 2014: Thermodynamics and Statistical Physics PHYS302 (3rd year)

Personal details

Date of Birth: 10 January 1973
Place: Johannesburg, South Africa
Marital Status: Married
Citizenship: South African/Norwegian