

Curriculum Vitae

DOMINIC VERITY

Centre of Australian Category Theory
Department of Mathematics and Statistics
Faculty of Science and Engineering
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Current position

Emeritus Professor of Pure Mathematics, Macquarie University

Areas of research interest

Higher Category Theory • Homotopy Theory • Programming Languages

APPOINTMENTS HELD

2020-2021	<i>Professor of Pure Mathematics</i> , Department of Mathematics and Statistics, Faculty of Science and Engineering, Macquarie University, Australia
2012-2020	<i>Professor of Computing</i> , Department of Computing, Faculty of Science and Engineering, Macquarie University, Australia
2013-2017	<i>Chair of Academic Senate</i> , Vice-Chancellor's Office, Macquarie University, Australia
2001-2007	<i>Director of Postgraduate Programs</i> , Division of ICS, Macquarie University, Australia
2001-2012	<i>Associate Professor</i> , Department of Computing, Macquarie University, Australia
2000-2001	<i>Senior Lecturer</i> , Department of Computing, Macquarie University, Australia
1999-2000	<i>Director and Lead Consultant</i> , Categorical Solutions Pty. Ltd., Sydney, Australia
1996-1999	<i>Head of Equity Derivative Trading</i> , HSBC James Capel, Sydney, Australia
1995-1996	<i>Senior Quantitative Analyst</i> , Equity Derivatives Trading, Deutsche Bank, Sydney, Australia
1993-1995	<i>Consultant Quantitative Analyst</i> , Bain and Company, Deutsche Bank, Sydney, Australia
1993-1995	<i>Lecturer</i> , Department of Mathematics, Macquarie University, Australia
1992-1993	<i>Research Fellow</i> , Department of Mathematics, Macquarie University, Australia
1991-1992	<i>Research Fellow</i> , Department of Pure Maths and Mathematical Statistics, Cambridge University, UK
1983-1984	<i>Computer Engineer</i> , BBC World Service, Bush House, London, UK
1981-1983	<i>Computer Programmer</i> , Acorn Computers Limited (now ARM Limited), Cambridge, UK

EDUCATION

1988-1992	<i>PhD in Mathematics</i> , Fitzwilliam College, Cambridge University, UK
1987-1988	<i>Part III Mathematics</i> , awarded with Distinction, Fitzwilliam College, Cambridge University, UK
1984-1987	<i>BSc (Hons) Mathematics</i> , Double 1 st Class, Fitzwilliam College, Cambridge University, UK

RECENT AWARDS, INVITATIONS & HONORARY APPOINTMENTS

2020	<i>Research Professor and Program Organiser</i> , Mathematical Sciences Research Institute (MSRI) program “Higher Categories and Categorification”, Berkeley (CA) USA.
2019	<i>Visiting Research Fellow</i> , Dept. of Mathematics, Johns Hopkins University, Baltimore (MD) USA
2018	<i>Invited Mentor</i> , Mass. Institute of Technology, Talbot Workshop , Course title: “Model-independent theory of ∞ -Categories”, Portland (OR) USA

2017	<i>Invited Lecturer</i> , AMSI Summer School 2017, Course title: “ <i>Category Theory and Computer Science</i> ”, Sydney University, Australia.
2016	<i>Visiting Professor</i> , Dept. of Mathematics and Mathematical Statistics, Cambridge University, UK
2016	<i>Visiting Research Fellow</i> , Max Planck Institute for Mathematics, Bonn, Germany
2015,2016	<i>Visiting Research Fellow</i> , Dept. of Mathematics, Johns Hopkins University, Baltimore MD, USA
2012-2015	<i>Associate in Mathematics</i> , Dept. of Mathematics, Harvard University, Cambridge MA, US (various separate appointments)
2011	<i>Invited Participant</i> , Mathematisches Forschungsinstitut Oberwolfach, Mini-workshop: “ <i>The homotopy interpretation of constructive type theory</i> ”, Germany
2011	<i>National Citation for Outstanding Contribution to Student Learning</i> , Australian Learning and Teaching Council (ALTC), “ <i>For a decade of inspirational and innovative educational leadership in the field of Information Technology</i> ”
2009	<i>Vice Chancellor’s Award for Teaching Excellence</i> , Macquarie University, “ <i>For leadership and development of postgraduate and professional development programs in Information Technology</i> ”
2006 and 2009	<i>Visiting Research Fellow</i> , Fitzwilliam College and <i>Visiting Professor</i> , Department of Pure Mathematics and Mathematical Statistics, Cambridge University, UK

EXTERNALLY FUNDED GRANTS

2019-2021	(with R. Street, S. Lack & R. Garner) Australian Research Council, Discovery Project DP190102432 , “ <i>Working synthetically in higher categorical structures</i> ”, AU\$453,000
2016–2018	(with R. Street, S. Lack & R. Garner) Australian Research Council, Discovery Project DP160101519 , “ <i>Monoidal categories and beyond: new contexts and new applications</i> ”, AU\$580,900
2015–2018	(with M. Hillier, A. Fluck et. al.) Australian Government Office of Learning and Teaching, “ <i>Transforming exams across Australia: processes and platform for e-exams in high stakes, supervised environments</i> ”, AU\$500,000
2013-2015	(with R. Street, S. Lack & R. Garner) Australian Research Council, Discovery Project DP130101969 , “ <i>Structural homotopy theory: a category-theoretic study</i> ”, AU\$600,000
2010-2012	(with R. Street, M. Johnson & S. Lack) Australian Research Council, Discovery Project DP1094883 , “ <i>Applicable Categorical Structures</i> ”. AU\$290,000
2007-2009	(with R. Street, M. Johnson & S. Lack) Australian Research Council, Discovery Project DP0771252 , “ <i>Cohomology enhanced: an application of enriched and higher categories</i> ”. AU\$276,000

PHD STUDENTS

2021 ongoing	(with S. Lack) David Farrell, “ <i>Model independent fibred ∞-category theory</i> ”
2021 ongoing	(with R. Garner) Yao Tang, “ <i>Higher categories and dependently typed logics</i> ”
2020 ongoing	(with S. Lack) Nicola Di Vittorio, “ <i>Higher derivators as a foundation for ∞-category theory</i> ”
2018 ongoing	(with R. Garner) Paula Verdugo, “ <i>Synthetic ∞-category theory</i> ”
2020 awarded	(with R. Street) Yuki Maehara, “ <i>The Gray tensor product for 2-quasi-categories</i> ”, Vice-Chancellor’s Medal for Excellence
2018 awarded	(with R. Garner) Edoardo Lanari, “ <i>Cylinder objects for Grothendieck-Maltsiniotis ∞-groupoids</i> ”
2015 awarded	(with R. Garner) Mitchell Buckley, “ <i>Three studies in higher category theory: fibrations, skew monoidal structures and excision of extremals</i> ”
2015 awarded	(with R. Garner) Matthew Burke, “ <i>Synthetic Lie Theory</i> ”
2012 awarded	(with R. Street) Thomas Booker, “ <i>Generalized and particular monoidal categories, and structures therein</i> ”
2012 awarded	(with R. Street) David Oury, “ <i>Duality for Joyal’s category Θ and homotopy concepts for Θ-sets</i> ”
2011 awarded	(with M. Johnson) Micah McCurdy, “ <i>Cyclic $*$-autonomous categories and the Tannaka adjunction via graphical methods</i> ”
2011 awarded	(with A. Sloane) Matthew Roberts, “ <i>Compiled generics for functional programming languages</i> ”
2010 awarded	(with P. Watters) Wai Han Ho, “ <i>On the evaluation of face identification systems</i> ”
2007 awarded	(with A. Sloane) Ekaterina Stefanov, “ <i>Simple code compression and customisation for bytecode for interpreters</i> ”