La Trobe University

School of Engineering and Mathematical Sciences

Research outputs and the research-related activities for
01 January 2017 - 30 June 2017
(excluding conference papers not in regular journals)

Publications


B. A. Davey, C. T. Gray and J. G. Pitkethly, "The homomorphism lattice induced by a finite algebra", Order (Published online: 10 May, 2017). DOI: 10.1007/s11083-017-9426-3

B. A. Davey and A. Gair, "Restricted Priestley dualities and discriminator varieties", Stud. Logica 105 (2017), 843–872. DOI: 10.1007/s11225-017-9713-4


L. Ham, "Relativised homomorphism preservation at the finite level", 105(4), 761–786, 2017.


P. Kabaila, R. Mainzer and D. Farchione, "Conditional assessment of the impact of a
Hausman pretest on confidence intervals", Statistica Nederlandica, accepted.
Y.Nikolayevsky, V.Matveev, “Locally conformally Berwald manifolds and compact
quotients of reducible manifolds by homotheties”, Annales de l’Institut Fourier,
67(2) (2017), 843–862.


T. Kowalski and Hiroakira Ono, “Analytic cut and interpolation for bi-intuitionistic

D. Wickramaarachchi and R. Lai, "Effort estimation in global software development -
a systematic review. Computer Science and Information Systems", 14(2) (2017): 393-
421.

N. Ali and R. Lai, "A method of software requirements specification and validation

N. Ali, R. Lai, "A method of requirements elicitation and analysis for Global Software

C. Tisdell and B. Loch, "How useful are Closed Captions for Learning Mathematics
http://www.tandfonline.com/doi/full/10.1080/0020739X.2016.1238518

M. Dunn, B. Loch and W. Scott, "The effectiveness of Resources created by Students
as Partners in explaining the Relevance of Mathematics in Engineering Education",
http://www.tandfonline.com/doi/full/10.1080/0020739X.2017.1338771

A. Anwar, A. Mahmood, Z Tari, “Ensuring Data Integrity of OPF Module and
Energy Database by Detecting Changes in Power Flow Patterns in Smart Grids”,

A. Anwar, A. Mahmood, J Taheri, Z Tari, AY Zomaya, “HPC-Based Intelligent
Volt/VAr Control of Unbalanced Distribution Smart Grid in the Presence of Noise”,
IEEE Transactions on Smart Grid 8 (3) (2017), 1446-1459.

Estimation over Distributed Data Streams”, IEEE Transactions on Parallel and
Distributed Systems, 2017, doi: 10.1109/TPDS.2017.2693983

A. Anwar, A. Mahmood, Z. Tari and A.Y. Zomaya: HPC based Intelligent Volt/VAr
Control of Unbalanced Distribution Smart Grid in the presence of Noise. IEEE
Transactions on Smart Grid, accepted.


L. A. Prendergast and R. G. Staudte, "When large n is not enough - distribution-free interval estimators of ratios of quantiles", J. Economic Inequality, online Feb 10, 2017.


T. A. T. Izhar, T. Torabi and M. I. Bhatti, "Record linkage in organizations: A review and directions for future research", Internat. J. Data Science, accepted.


Grants


A. Desai, “Operational Trials for Autonomous Shuttles at La Trobe University Campus” cash grant of $385,437 from State Government of Victoria through
VicRoads with total cash/in-kind project value of $980,357.
[Project Partners: Keolis Downer, HMI Technologies, ARRB, RACV]

A. Desai, M. Meena, A. Bervan and A. Stumpf. “Scalable Firmware Solution for SHF RFID Sensor Tags” from Department of Industry, Innovation and Science, and SensaData Pty Ltd., cash grant of $133,916.


A. Desai, “Tram Signal Priority using Connected Technologies” cash grant of $669,000 from State Government of Victoria through VicRoads with total cash/in-kind project value of $1.2 million. [Project Partners: YarraTrams and ARRB]

M. Hussain, "Diophantine approximation and Dynamical Systems 6–8 January 2018” AMSI conference support, $5,600.


M. Hussain, Excellence in Teaching for Equity in Higher Education (ETEHE), The University of Newcastle, 2017–2018, $15,000.

R. Lumley, "Literature review on Design Safety Factors for Additive Manufacturing", Defence Science Institute, $10,000.

R. Ross and A. Stumpf, Industry Connections Grant with Griffiths Components for “AutoMange – Automated Mange Treatment Device”, $35,000

T. Torabi and K. Rogers, "Optimised Heading and Track Control", Defence Science Institute, $65,000.

T. Torabi and K. Rogers, "Maritime Information and Decision Support using ECDIS", Dept. of Industry, $100,000.

M. Cotchett, C. Barton, M. Dilnot and T. Torabi, "Improving knowledge translation and treatment of people with plantar heel pain", Australian Podiatry and Education Research Foundation, $23,099.

D. H. (Justin) Wang, 2017 Staff Exchange Program for Research Collaboration between La Trobe University and Peking University Researchers, $5000.

P. Watters, University of Tasmania, $6k, CAL Hothouse Research Enhancement Program (C. Spiranovic, L. Eckstein, R. McWhirter, K. Kirkby, P. Watters, J. Vickers), "Enhancing early detection of cognitive impairment in the criminal justice system".

**Professional and editorial appointments**

Phil Broadbridge has accepted a three-year term on the editorial board of Pacific Journal of Mathematics for Industry (Springer).


Phoebe Chen has been appointed as Guest Editor of BMC Genomics 2016-2017.

Phoebe Chen has been appointed as Guest Editor of BMC Bioinformatics, 2016-2017.

Phoebe Chen has been appointed as Guest Editor of BMC Systems Biology 2016-2017.

Phoebe Chen has been appointed as Guest Editor of IEEE/ACM Transactions on Computational Biology and Bioinformatics 2016-2017.

Phoebe Chen has been appointed as Guest Editor of Computational Biology and Chemistry, 2016-2017.

Phoebe Chen has been invited as Program Co-Chair of ACM Multimedia conference (ACM MM2017).

Phoebe Chen has been invited as Program Co-Chair of Fifteenth Asia Pacific Bioinformatics Conference (APBC2017).


Marcel Jackson has been appointed as joint Managing Editor of Algebra Universalis.


Roger Lumley was awarded a higher doctorate from University of Queensland.
Roger Lumley has been appointed to the Victorian Committee of the Aus Academy of Technological Science and Engineering.

Roger Lumley has been appointed as CSIRO Honorary Visiting Scientist.

Roger Lumley became a member of the Engineers Aust. Engineering Executive, with additional chartered status in Leadership and Management (with ongoing chartered status in Mechanical Engineering).

Luke Prendergast was Chair of the Scientific Committee for the International Conference on Robust Statistics (ICORS), Wollongong July 3-7, 2017.

Industry collaborations

Centre for Technology Infusion has formed a major strategic partnership group to facilitate a submission to the Federal Government for a SmartCity initiative. Partners include The City of Darebin, Dyson Group, YarraTrams, Uber, Optus, Australian Road Research Board (ARRB), Royal Automobile Club of Victoria (RACV), and VicRoads. CTI has led a submission made to the Federal Government with input of $690,000 of cash commitment from partners for a possible grant of $1.3 million.

Laura Karantgis has accepted a CSIRO Studentship.

Roger Lumley is Deputy Chair of Victorian Defence alliances submarines committee.

Roger Lumley has been invited to be a member of the Victorian Skills Commission’s industry advisory group (representing the ATSE)

Roger Lumley continues as part-time Technical Manager for AW Bell Pty. Ltd. (Aerospace, Defence and biomedical products)

Phil Broadbridge has been appointed as honorary CSIRO Research Fellow.

Paul Watters, Naveen Chilamkurti, Abdun Mahmood and Prakash Veeraraghavan established the Cyber Intelligence Laboratory in collaboration with Alata Group and Breon Systems.

Paul Watters and Professor L Jean Camp (Indiana) have initiated the Australian Cyber Resilience Baseline Working Committee with Data61, the Anti-Phishing Working Group (APWG), and STOP.THINK.CONNECT.