

Main Achievements

Scholarship, Research, Creative Activity

- I have attracted funding with a total value of AUD 4,472,590 (AUD 409,965 as the lead investigator, including an ARC DECRA).
- I have co-authored over 100 articles with over 100 different colleagues (e.g. from Max-Planck-Institute, Hasso-Plattner-Institute, and University College London), with 13 accepted in 2017 and 13 in 2018. So far, I have published 7x A*-ranked papers and 38 A-ranked papers (scale: A*/A/B/C/unranked).
- My h-index is 20 with over 1200 citations (Google Scholar), with the number of citations per year steadily increasing.
- I have been invited four times to prestigious invitation-only seminars on hot topics in computer science: 4x Dagstuhl, 2x NII Shonan. Also, I have been leading organiser of a NII Shonan meeting. I have been opening keynote speaker at the 2nd Workshop on System Integration of Renewable Energy (WSIRE) 2014 and at the Symposium on Evolutionary Computation 2017.
- Promotion to Senior Lecturer after 3 years of completing the PhD.
- I have received the University Doctoral Research Medal 2013, which has been the first medal for the School of Computer Science.
- So far, I have been awarded a best paper award, a best poster award, and a best presentation award. In three conference competitions, I have reached 3rd, 2nd, and 1st places.
- I am currently involved in two ARC DP proposals around algorithmic aspects in optimisation, in one ARC LP proposals around wave energy, in one ARC ITTC proposal and in an active PRIF RCP on ore resource modelling and optimisation. Also, I am pursuing the commercialisation of research outcomes as a former CSIRO ON Prime participant.

Teaching, Including Supervision

- I have taught 15 different subjects since 2005 and supervised a substantial number of projects. I have led a group to develop half of a massive open online course. Also, I have developed a 4th-year university course on Search-Based Software Engineering.
- Outstanding perception by students: in "Markus Wagner is an effective university teacher" I scored 2x 100% broad agreement in 2013, 3x 100% in 2014, 4x 100% in 2015, 3x 100% in 2016, 1x in 100% in 2017, and 1x in 100% in 2018.
- Above University-average SELT scores and fantastic comments, and course improvements as manifested in improved course SELT scores and reduced failure rates for "Introduction to Programming".
- Higher degree research student supervision: 2 PhD students graduated, 4 PhD students ongoing, 11 Masters or Honours students supervised or currently supervising.
- Projects with coursework students resulted in the publication of eight refereed articles (six A-ranked).
- Team leadership: in 2017, I have had three computer science students working on topics related to my ARC grant, and five computer science students on topics related to my collaboration with the School of Mechanical Engineering around wave energy. This has set the solid foundations for two current ARC Linkage proposals and for a current ACSRF Joint Research Centre Proposal.

Professional Activity, including Service to the Community

- Organisation: Workshop Chair GECCO 2016 & 2017 (main conference in the field of Evolutionary Computation), Program Chair ACALCI 2017, Competition Chair GECCO 2018 & 2019, General Chair ACALCI 2018
- Editorial work: Associate Editor of Frontiers in Applied Mathematics and Statistics, Managing Guest-Editor of a special issue with over 130 submissions (ERA A ranked journal)
- Chairing of education-related committees: IEEE CIS University Curricula 2016 & 2017, previously IEEE CIS Educational Repository 2014 & 2015

Administration, Service, and Leadership in the University

- IT Coordinator (2014/2015): renewal of teaching suites, negotiated after-hours support, initiated tender process for the University's preferred hardware supplier, LMS upgrade from Blackboard/Moodle to Canvas
- Outreach Team (2015): Ingenuity 2015 co-organiser (responsible for the School's site, and coordination of 35 projects, 4,500 attendees)
- Reference Group Membership in the university's Learning Management System Review 2015/16 and in the ECMS Faculty Future Support Project "Professional Services Reform" 2015, Research & Innovation Reference Group 2018/19

Personal Details

Nationality: German
Visa Status: Australian Permanent Resident
Language Skills: German (native), English (fluent), French (basic)
Memberships: ACM (Association for Computing Machinery)
ACS Alumni (Australian Computer Science Society)
AIESEC Alumni (International Economic and Commercial Sciences Students Association:
Business Development and University Relations Officer)
AUBC Alumni (Adelaide University Badminton Club: Team Captain C Grade Team)
AUGC Alumni (Adelaide University German Club: General Committee Member)
DAAD Alumni (German Academic Exchange Service)
GI (Gesellschaft für Informatik)
IEEE (Institute of Electrical and Electronics Engineers)

Work Experience

since 01/2018 **Daitum Pty Ltd.**
Scientific Board Member

Since 01/2017 **The School of Computer Science, The University of Adelaide, Australia**
Senior Lecturer (Level C, continuing)

Honours and Awards: Tutorial Presenter at IEEE CEC 2019: Genetic Improvement of Software
Opening Keynote Speaker – Symposium on Evolutionary Computation, Hefei, China 2017
Many-Objective Optimisation Competition at IEEE CEC 2017: 3rd place (7 competitors)
Invited Lecturer at the Data61 5th International Optimisation Summer School, Kioloa in January 2017
Invitation-only event: Dagstuhl Seminar “Genetic Improvement of Software” 2018

Commercialisation: CSIRO ON Prime participant, team lead (performance bonus: AUD 3,200)

Course development:

edX Big Data MicroMasters: Computational Thinking and Big Data
COMP SCI 4409/4809/7409 Search-Based Software Engineering

Administration: Focus group participant “Researcher Profiles” 2017

2019 Teaching (Semester 1):

Search-Based Software Engineering (Honours/Masters): lecturer 100%, course coordinator
Topics in Computer Science (Undergraduate): lecturer 100%, course coordinator

2018 Teaching (Semester 2):

Search-Based Software Engineering (Honours/Masters): lecturer 100%, course coordinator

2017 Teaching (Semester 2):

Search-Based Software Engineering (Honours/Masters): lecturer 100%, course coordinator
Master of Computer Science Project: project supervisor
Master of Software Engineering Project: project supervisor
Honours Research Project: project supervisor

2017 Teaching (Semester 1):

Master of Computer Science Project: project supervisor
Master of Software Engineering Project: project supervisor
Honours Research Project: project supervisor

01/2016–12/2018 **ARC DECRA Fellow (DE160100850)**
The School of Computer Science, The University of Adelaide, Australia
Dynamic adaptive software configuration

Honours and Awards: Best Presentation Award at the Genetic Improvement Workshop (GECCO 2016)
MaxSAT 2016 Competition: my SC2016 achieved 1x 1st place, 3x 2nd place, 4x 3rd place (17 competitors)
Invitation-only event: Dagstuhl Seminar “Automated Algorithm Selection and Configuration” 2016

since 08/2015 **Complexica Pty Ltd.**
Scientific Board Advisor

03/2013–12/2016 **The School of Computer Science, The University of Adelaide, Australia**
Lecturer (Level B)

Honours and Awards: Opening Keynote Speaker – 2nd Workshop on System Integration of Renewable Energy (WSIRE), Oldenburg, Germany 2014

Invitation-only event: NII Shonan Meeting "Computational Intelligence for Software Engineering" 2014
Invitation-only event: Dagstuhl Seminar "Computer Science in High Performance Sport" 2013
Wind Farm Layout Optimisation Competition at GECCO 2014: 2nd place

2016 Teaching (Semester 2):

Mining Big Data (Honours/Masters): lecturer 50%, course coordinator

2016 Teaching (Semester 1):

Advanced Topics in Computer Science (Level 3): project supervisor

Object Oriented Programming – Small Group Discovery Experience (Level 1): lecturer 25%

2015 Teaching (Semester 2):

Evolutionary Computation (Honours/Masters): lecturer 50%, course coordinator

Software Engineering Research Project (Honours): lecturer 33%

Problem Solving and Software Development (Level 2): lecturer 60%

2015 Teaching (Semester 1):

Mining Big Data (Honours/Masters): lecturer 50%

Software Engineering Research Project (Honours): lecturer 33%

Topics in Computer Science (Level 2): project supervisor

Introduction to Programming for Engineers (Level 1): lecturer 33%

2014 Teaching:

Master of Computing and Innovation Project (Masters): project supervisor

Evolutionary Computation (Honours/Masters): lecturer 100%, course coordinator

Topics in Computer Science (Level 2): project supervisor

Object Oriented Programming (Level 1): lecturer 40%

Introduction to Programming (Level 1): lecturer 40%, course coordinator

Introduction to Programming (Level 1): lecturer 50%

2013 Teaching:

Specialised Programming (Masters): lecturer 75%, course coordinator

Software Engineering and Project (Level 3): project supervisor

Introduction to Software Engineering (Level 2): lecturer 50%

Introduction to Programming (Level 1): 50% lecturer, course coordinator

Administration:

IT Coordinator: development, implementation, and improvement of teaching-related services and infrastructure; organised after-hour support; initiated new tender process for hardware suppliers; renewed a computer aided teaching suite with 45 computers and redeveloped two teaching spaces; contributed to learning management system review at University level (since 2014); contributed to restructuring of the professional services at a Faculty level (2015); Ingenuity 2015 co-organiser (responsible for coordinating the 35 projects of the School, 4,500 attendees)

Commercialisation: Australian eChallenge participant

02/2011–05/2013

The University of Adelaide, Australia

1) **PhD student** at The School of Computer Science

Complexity analysis of bio-inspired algorithms, application of bio-inspired algorithms to scenarios in the area of renewable energy sources

2012 Tutor:

Evolutionary Computation (Honours/Masters)

Algorithm and Data Structure Analysis (Level 2)

2011 Tutor:

Evolutionary Computation (Honours/Masters)

Data Structures and Algorithms (Level 2)

2) **Regional Business Development Officer AIESEC Adelaide, Australia (03/2012 –02/2014)**

Establishing collaborations with companies in the greater Adelaide area, with the goal to promote personal growth of young professionals and to foster cultural exchange

04/2010–01/2011

Max Planck Institute for Informatics, Saarbrücken, Germany

PhD student

Complexity analysis of bio-inspired algorithms, application of bio-inspired algorithms to scenarios in the area of renewable energy sources

11/2004 –09/2009

Working Group Artificial Intelligence, University of Koblenz-Landau, Germany

Student research assistant

Formal verification of (concurrent) C code using Isabelle/HOL and Microsoft Verifying C Compiler
2008 Tutor: Logic for Computer Scientists (Level 2)
2005 Tutor: Experimental Physics – Optics (Level 3–5)

10/1999 –07/2006

Webdesign and Retail Wagner

My own business enterprise: IT consulting, trading, web-design

Education

02/2011–05/2013

PhD program at the School of Computer Science

The University of Adelaide, Australia

Honours and Awards:

University Doctoral Research Medal 2013 (The University of Adelaide)
Dean's Commendation for Doctoral Thesis Excellence 2013 (The University of Adelaide)
Representative of the University of Adelaide at the China Nine / Group of Eight HDR Forum "Clean Energy and Sustainable Future", Beijing, China 2011
School of Computer Science HDR Day Best Poster Award "People's Choice" 2011 (The University of Adelaide), best out of 23 posters
Metaheuristics International Conference 2011 Best Paper Award, best out of 120 accepted papers

2012

Future Research Leaders Program

Group of Eight & The University of Adelaide, Australia

Content: best practice training in financial management, grant administration, business planning, commercialisation and technology transfer, corporate governance, financial reporting, acquittal and audit requirements

04/2010–01/2011

PhD program at the Max Planck Research School for Computer Science

Max Planck Institute for Informatics, Saarbrücken, Germany

Department 1 – "Algorithms and Complexity"

Transferred to the University of Adelaide together with my supervisor

04/2003–11/2009

Master's degree program (Diplom) of Computer Science

University of Koblenz-Landau, Germany: "High Distinction (HD)"

Diploma Thesis "Testing a Verification Environment"

Hardware Project "Remote-Controlled Car with Video Transmission"

08/2006–05/2007

Master's degree program of Artificial Intelligence

University of Georgia, USA: "High Distinction (HD)"

Supervision

2018

Lujun Weng, Masters student (principal supervisor)

"Hardware/Software Framework for Energy Consumption Measurements for Smartphones"

2018

Kevin Dang, Honours student (principal supervisor)

"Machine learning surrogates for wave farm optimisation"

Since 2017

Mafouth Al-Ghamdi, PhD candidate (principal supervisor)

"Mining Software Repositories"

2017

Constantina Pyromallis, Honours student (principal supervisor)

Surrogate models for the optimisation of submerged wave energy converters

2017

Oliver Jackson, Honours student (principal supervisor)

Converting constraints in optimisation problems to additional objectives

2017

Vidi Valianto Shaweddy, Master's candidate (equal co-supervisor)

Masatoshi Takada, Master's candidate (equal co-supervisor)

"Sensor-fusion and location tracking on Android 6 smartphones"

2017

Chenwei Feng, Master's candidate

Mengyu Li, Master's candidate

Yuanzhong Xia, Master's candidate

"Surrogate Models for the optimisation of wave energy converters"

Since 2016

Mehdi Neshat, PhD candidate (principal supervisor)

"Genetic Programming for Energy Bug Repair"

Since 2016

Mahmoud Bokhari, PhD candidate (principal supervisor)

"Optimisation of Non-Functional Properties of Software"

2016

Chenglong Cui, Master's candidate (principal supervisor)

"Software-based Energy Consumption Measurement on Mobile Phones"

2015/2016

Slava Shekh, Master's candidate (principal supervisor)

2014/2015	“Optimisation of Submerged Buoy Arrays for Improved Ocean Wave Energy Production” Jingwei Liu, Master’s candidate (principal supervisor)
2014/2015	“Heuristic methods for water distribution system optimisation” Mahmoud Bokhari, Master’s candidate (principal supervisor)
2013-2017	“Software Testing a Verification System” Mojgan Pourhassan, PhD candidate (co-supervisor)
2013-2016	“Multi-Objective Optimisation by Means of Evolutionary Algorithms” Wanru Gao, PhD candidate (co-supervisor)
	“Design and Analysis of Evolutionary Multi-Objective Algorithms”

External PhD Thesis Examiner

2018	Mohamed El Yafrani, Mohammed V University, Morocco
2018	Asad Mohammadi, RMIT University, Australia

Grants and Scholarships

1. Special Studies Program (The University of Adelaide)
AUD 4,800 (Dr. Markus Wagner)
2. EPIC Expert Visit, Dr. Earl Barr from University College London (funded by European Union's Horizon 2020 research and innovation programme (ICT) under grant agreement No 687794)
EUR 2,000 (Dr. Markus Wagner, Dr. Christoph Treude, Dr. Marcel Böhme)
3. Overseas Conference Leave Scheme Travel Award 2018 (The University of Adelaide)
AUD 2,000 (Dr. Markus Wagner)
4. Premier’s Research and Industry Fund: Research Consortia Program 2018-2021 (Department of State Development)
“Unlocking Complex Resources through Lean Processing”
AUD 4,000,000 (lead CI Prof. Stephen Grano, in total 22 CIs), total project AUD 14.6 million
5. Australia-China Young Scientists Exchange Program 2017 (Australian Academy of Technology and Engineering and China Science and Technology Exchange Center)
Two-week networking program in China (all expenses paid)
6. ARC Linkage Project Proposal Support (The University of Adelaide)
AUD 4,100 (Prof. Ben Cazzolato, A/Prof. Maziar Arjomandi, Dr. Markus Wagner, Dr. Luke Bennetts, Dr. Boyin Ding)
7. CSIRO ON Prime Pre-Accelerator Program (CSIRO)
“Portable Hardware Energy Optimisation”
AUD 3,200 (Dr. Brad Alexander, Francois Duvenage, Dr. Markus Wagner (lead applicant))
8. Overseas Conference Leave Scheme Travel Award 2017 (The University of Adelaide)
AUD 3,065 (Dr. Markus Wagner)
9. Faculty ECMS Interdisciplinary Research Grant 2016 (The University of Adelaide)
“Nonlinear modelling of fully submerged wave energy converters for high fidelity yet computationally efficient numerical analysis and prototype design”
AUD 18,025 (Dr. Boyin Ding, Dr. Javad Farrokhi Derakhshandeh, Dr. Markus Wagner, Dr. Luke Bennetts, Prof. Benjamin Cazzolato, A/Prof. Maziar Arjomandi, Prof. Frank Neumann, Prof. Gus Nathan)
10. Faculty ECMS Professional Development Grant 2016 (The University of Adelaide)
AUD 4,700 (Dr. Markus Wagner)
11. Priority Partner Grant 2016 Nottingham (The University of Adelaide)
AUD 5,000 (Dr. Markus Wagner (lead applicant), Prof. Frank Neumann)
12. Discovery Early Career Researcher Award 2016 DE160100850 (Australian Research Council)
AUD 330,000 (Dr. Markus Wagner)
The project was also granted AUD 20,000 from the University’s DVC-Research.
13. Priority Partner Grant 2015 Strasbourg/Freiburg (The University of Adelaide)
AUD 5,000 (Dr. Markus Wagner (lead applicant), A/Prof. Frank Neumann)
14. Interdisciplinary Research Fund 2015 (The University of Adelaide)
“Modelling and optimisation of submerged buoys for improved ocean wave energy production”
AUD 27,000 (Dr. Markus Wagner (lead applicant), Dr. Boyin Ding, A/Prof. Frank Neumann, Prof. Benjamin Cazzolato, Dr. Maziar Arjomandi)
15. Overseas Conference Leave Scheme Travel Award 2015 (The University of Adelaide)
AUD 2,000 (Dr. Markus Wagner)
16. Faculty Research Internal Grant 2014 (The University of Adelaide)
AUD 8,500 for software licenses and specialised coprocessor cards (Dr. Bradley Alexander, Prof. Frank Neumann, Dr. Markus Wagner)
17. Overseas Conference Leave Scheme Travel Award 2014 (The University of Adelaide)
AUD 2,000 (Dr. Markus Wagner)

18. School of Computer Science Research Internal Grant 2013 (The University of Adelaide)
AUD 30,000 for a computing cluster and software licenses (Dr. Bradley Alexander, Dr. Cruz Izu, Prof. Frank Neumann, Dr. Markus Wagner)
19. Google PhD Travel Prize 2012 (Google Australia Pty Ltd.)
AUD 2,500
20. Bupa Postgraduate Travel Grant 2012 (Bupa Australia Pty Ltd.)
AUD 2,500
21. Google PhD Top Up Grant 2011 for "meritorious academic record and high standard of research capability" (Google Australia Pty Ltd.)
AUD 5,000
22. School of Computer Science Postgraduate Scholarship 2011/2012 (The University of Adelaide)
AUD 54,000 p.a. (approx)
23. Max Planck Research School Postgraduate Scholarship 2010 (Max Planck Institute for Informatics)
EUR 16,000 p.a. (approx)
24. Internationale Studien- und Ausbildungspartnerschaften ISAP (German Academic Exchange Service, DAAD), full scholarship for my MSc studies at the University of Athens, USA, 2006/2007
EUR 15,000 (approx)
25. Travel awards to attend the following events (granted by the respective organising committees): Genetic and Evolutionary Computation Conference (GECCO) 2013, International Joint Conference on Artificial Intelligence (IJCAI) 2011, Interdisciplinary College (IC) 2010, Künstliche Intelligenz (KI) 2009, Congress on Evolutionary Computation (CEC) 2009, Genetic and Evolutionary Methods (GEM) 2008, EvoWorkshops 2008
26. Jugend forscht (regional youth research competition)
3rd place in the field of Mathematics/Computer Science 2002
3rd place in the field of Technology 2000

Referees

- **Prof Frank Neumann (Research Group Leader)**
The University of Adelaide, Australia
Email: frank.neumann@adelaide.edu.au, T: +61 8 8313 4477, F: +61 8 8313 4366
- **Prof Tobias Friedrich (regular co-author since 2011)**
Hasso-Plattner-Institute, Germany
Email: friedrich@hpi.de, T: +49 331 5509 410, F: +49 331 5509 429
- **Prof Cesare Alippi (Vice-President Education of the IEEE Computational Intelligence Society)**
Politecnico di Milano, Italy
Email: cesare.alippi@polimi.it, T: +39 02 23993512, +39 02 23993411
- **Prof Benjamin Doerr (initial research supervisor)**
Max Planck Institute for Informatics, Germany, T: +49 681 9325 1004, F: +49 681 9325 1099
École Polytechnique, France, T: +33 177578016, F: +33 169333818
Email: doerr@lix.polytechnique.fr

Publications

Edited Volumes

1. **Markus Wagner**, Xiaodong Li, Tim Hendtlass (2017). Third Australasian Conference on Artificial Life and Computational Intelligence. Springer LNAI 10142.
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Book Chapters

2. Mohammad Reza Bonyadi, Zbigniew Michalewicz, Frank Neumann, and **Markus Wagner** (2019). Evolutionary computation for multi-component problems: Opportunities and future. In Optimization in Industry - Present Practices and Future Scopes, p. 13-30, Springer.
 3. **Markus Wagner**, Jareth Day, Diora Jordan, Trent Kroeger, and Frank Neumann (2013). Evolving Pacing Strategies for Team Pursuit Track Cycling. Advances in Metaheuristics, p. 61-76. Springer.
 4. Frank Neumann, Una-May O'Reilly, and **Markus Wagner** (2011). Computational Complexity Analysis of Genetic Programming. Genetic Programming Theory and Practice (GPTP). Springer.
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Refereed Journal Articles

ERA ranking,
imp. factor

5. Shelvin Chand, Quang Nhat Huynh, Hemant Kumar Singh, Tapabrata Ray, and Markus Wagner (2018). On the Use of Genetic Programming to Evolve Priority Rules for Resource Constrained Project Scheduling Problems. <i>Information Sciences</i> . Vol 432, March, 146-163.	B 4.378
6. Mohamed El Yafrani, Marcella Martins, Markus Wagner , Belaid Ahiod, Myriam Delgado, and Ricardo Lüders (2017). A Hyperheuristic Approach based on Low-Level Heuristics for the Travelling Thief Problem. <i>Genetic Programming and Evolvable Machines</i> . Accepted on 5 July 2017, online on 15 July 2017.	- 1.514
7. Markus Wagner , Marius Lindauer, Mustafa Misir, Samadhi Nallaperuma, and Frank Hutter (2017). A case study of algorithm selection for the traveling thief problem. <i>Journal of Heuristics</i> . Vol. 24, Issue 3, 295-320.	A 1.807
8. Mohammad Ali Moridi, Youhei Kawamura, Mostafa Sharifzadeh, Emmanuel Knox Chanda, Markus Wagner , Hirokazu Okawa (2017). Performance Analysis of ZigBee Network Topologies for Underground Space Monitoring and Communication Systems. <i>Tunnelling and Underground Space Technology</i> . Accepted on 20 September 2017.	A 2.562
9. Markus Wagner (2016). Nested multi- and many-objective optimisation for team pursuit track cycling. <i>Frontiers in Applied Mathematics and Statistics, Section Optimization</i> , Vol. 2, 17 pages.	
10. Shahriar Mahboub, Markus Wagner , and Luigi Crema (2016). Incorporating Domain Knowledge into the Optimization of Energy Systems. <i>Applied Soft Computing</i> . Vol. 47, p. 483-493.	C 3.541
11. Shelvin Chand and Markus Wagner (2016). Evolutionary Many-Objective Optimization: A Quick-Start Guide. <i>Surveys in Operations Research and Management Science</i> , Vo. 20, Issue 2, p. 35-42.	B 4.000
12. Paul Kaufmann, Frank Neumann, Oliver Kramer, and Markus Wagner (2016). Optimization Methods in Renewable Energy Systems Design (Special Issue), <i>Renewable Energy Journal</i> , Vol. 87, Part 2, p. 835-1030.	A 4.357
13. Markus Wagner , Frank Neumann, and Tommaso Urli (2015). On the Performance of Different Genetic Programming Approaches for the SORTING Problem. <i>Evolutionary Computation Journal</i> , Vol. 23, No. 4, p. 583-609.	A 3.826
14. Mohammad Ali Moridi, Youhei Kawamura, Mostafa Sharifzadeh, Emmanuel Knox Chanda, Markus Wagner , Hyongdoo Jang, and Hirokazu Okawa (2015). Development of Underground Mine Monitoring and Communication System integrated ZigBee and GIS. <i>International Journal of Mining Science and Technology</i> , Vol. 25, Issue 5, p. 811-818.	B 1.410
15. Markus Wagner , Karl Bringmann, Tobias Friedrich, and Frank Neumann (2015). Efficient Optimization of Many Objectives by Approximation-Guided Evolution. <i>European Journal of Operational Research</i> , Vol. 243, No. 2, p. 465-479.	A 3.582
16. Tobias Friedrich and Markus Wagner (2015). Seeding the Initial Population of Multi-Objective Evolutionary Algorithms: A Computational Study. <i>Applied Soft Computing</i> , Vol. 33, p. 223-230.	C 3.541
17. Samadhi Nallaperuma, Markus Wagner , and Frank Neumann (2015). Analyzing Problem Hardness Features and Algorithm Parameters for Ant Colony Optimization and the Traveling Salesperson Problem. <i>Frontiers in Robotics and AI, Section Computational Intelligence</i> , Vol. 2, No. 18.	
18. Youhei Kawamura, Markus Wagner , Hyongdoo Jang, Hajime Nobuhara, Takeshi Shibuya, Itaru Kitahara, Ashraf Dewan, and Bert Veenendaal (2015). A multimedia data visualization based on ad-hoc communication networks and its application to disaster management. <i>International Journal of Geo-Information</i> , Vol. 4, Issue 4, p. 2004-2018. (<i>invited article</i>)	
19. Youhei Kawamura, Kento Ishii, Hyongdoo Jang, Markus Wagner , Hajime Nobuhara, Ashraf M. Dewan, Bert Veenendaal, and Itaru Kitahara (2015). Analysis of radio wave propagation in an urban environment and its application to initial disaster response support. <i>Journal of Disaster Research</i> , Vol. 10, No. 4, p. 655-666.	
20. Markus Wagner , Jareth Day, and Frank Neumann (2013). A Fast and Effective Local Search Algorithm for Optimizing the Placement of Wind Turbines. <i>Renewable Energy Journal</i> , Vol. 51, p. 64-70.	A 4.357
21. Katya Vladislavleva, Tobias Friedrich, Frank Neumann, and Markus Wagner (2013). Predicting the Energy Output of Wind Farms Based on Weather Data: Important Variables and their Correlation. <i>Renewable Energy Journal</i> , Vol. 50, p. 236-243.	A 4.357
22. Olaf Mersmann, Bernd Bischl, Heike Trautmann, Markus Wagner , and Frank Neumann (2013). A Novel Feature-Based Approach to Characterize Algorithm Performance for the Traveling Salesman Problem. <i>Annals of Mathematics and Artificial Intelligence</i> , Vol. 69, No. 2, p. 151-182.	C 0.807
Refereed Conference Papers	
CORE ranking	
23. Thomas Weise, Zijun Wu, and Markus Wagner (2019). An Improved Generic Bet-and-Run Strategy for Speeding Up Stochastic Local Search. 33 rd AAAI Conference on Artificial Intelligence, Honolulu, USA.	A*
24. Christoph Treude and Markus Wagner (2019). Predicting Good Configurations for GitHub and Stack Overflow Topic Models. <i>Mining Software Repositories</i> , Montreal, Canada.	A
25. Mahmoud Bokhari, Lujung Weng, Markus Wagner , Bradley Alexander (2019). Mind the gap - a distributed framework for enabling energy optimisation on modern smart-phones in the presence of noise, drift, and statistical insignificance. In <i>Proceedings of the IEEE Congress on Evolutionary Computation</i> , Wellington, New Zealand.	B
26. Mahmoud A. Bokhari, Brad Alexander and Markus Wagner (2018). In-vivo and offline optimisation of energy use in the presence of small energy signals -- A case study on a popular Android library. In <i>Proceedings of Mobiquitous</i> , New York City, USA.	A

27. Carola Doerr and Markus Wagner (2018). Sensitivity of Parameter Control Mechanisms with Respect to Their Initialization. In Proceedings of Parallel Problem Solving from Nature (PPSN), Coimbra, Spain.	A
28. Tobias Friedrich, Andreas Goebel, Francesco Quinzan, and Markus Wagner (2018). Heavy-tailed Mutation Operators in Single-Objective Combinatorial Optimization. In Proceedings of Parallel Problem Solving from Nature (PPSN), Coimbra, Spain.	A
29. Didac Rodríguez Arbones, Nataliia Y. Sergiienko, Boyin Ding, Oswin Krause, Christian Igel, and Markus Wagner (2018). Sparse incomplete LU-decomposition for Wave Farm Designs under Realistic Conditions. In Proceedings of Parallel Problem Solving from Nature (PPSN), Coimbra, Spain.	A
30. Carola Doerr and Markus Wagner . Simple On-the-Fly Parameter Selection Mechanisms for Classical Discrete Black-Box Optimization Benchmarks. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Kyoto, Japan.	A
31. Tobias Friedrich, Francesco Quinzan and Markus Wagner . Escaping Large Deceptive Basins of Attraction with Heavy Mutation Operators. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Kyoto, Japan.	A
32. Aneta Neumann, Wanru Gao, Carola Doerr, Frank Neumann, and Markus Wagner . Discrepancy-based Evolutionary Diversity Optimization. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Kyoto, Japan.	A
33. Mehdi Neshat, Bradley Alexander, Yuanzhong Xia and Markus Wagner (2018). A Detailed Comparison of Meta-Heuristic Methods for Optimising Wave Energy Converter Placements. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Kyoto, Japan.	A
34. Junhua Wu, Sergey Polyakovskiy, Markus Wagner and Frank Neumann. Evolutionary Computation plus Dynamic Programming for the Bi-Objective Travelling Thief Problem. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Kyoto, Japan.	A
35. Mohamed El Yafrani, Marcella Martins, Mehdi El Krari, Markus Wagner , Myriam Delgado, Belaid Ahiod, Ricardo Lüders: A fitness landscape analysis of the Travelling Thief Problem. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Kyoto, Japan.	A
36. Vivek Nair, Amritanshu Agrawal, Jianfeng Chen, Wei Fu, George Mathew, Tim Menzies, Leandro Minku, Markus Wagner and Zhe Yu. Data-Driven Search-based Software Engineering. In Proceedings of Mining Software Repositories (MSR), Gothenburg, Sweden.	A
37. Junhua Wu, Markus Wagner , Sergey Polyakovskiy, and Frank Neumann (2017). Exact Approaches for the Travelling Thief Problem. In Proceedings of the International Conference on Simulated Evolution and Learning (SEAL), Shenzhen, China.	B
38. Andrei Lissovoi, Dirk Sudholt, Markus Wagner , and Christine Zarges (2017). Theoretical results on bet-and-run as an initialisation strategy. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO), Berlin, Germany.	A
39. Marcella Scoczynski Ribeiro Martins, Mohamed El Yafrani, Markus Wagner , Myriam Delgado, Belaïd Ahiod, and Ricardo Lüders (2017). HSEDA: A Heuristic Selection Approach Based on Estimation of Distribution Algorithm for the Travelling Thief Problem. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO), Berlin, Germany.	A
40. Wenwen Li, Ender Ozcan, Robert John, John H. Drake, Aneta Neumann and Markus Wagner (2017). A Modified Indicator-based Evolutionary Algorithm (mIBEA). In Proceedings of IEEE Congress on Evolutionary Computation (CEC), San Sebastian, Spain.	B
41. Markus Wagner , Tobias Friedrich and Marius Lindauer (2017). Improving local search in a minimum vertex cover solver for classes of networks. In Proceedings of IEEE Congress on Evolutionary Computation (CEC), San Sebastian, Spain.	B
42. Meinolf Sellmann and Markus Wagner (2017). Learning a Reactive Restart Strategy to Improve Stochastic Search. In Proceedings of the 11 th Learning and Intelligent Optimisation Conference (LION), Nizhny Novgorod, Russia	
43. Tobias Friedrich, Timo Kötzing, and Markus Wagner (2017). A Generic Bet-and-run Strategy for Speeding Up Stochastic Local Search. In Proceedings of the 31 st Association for the Advancement of Artificial Intelligence Conference (AAAI), San Francisco, USA.	A*
44. Shahriar Mahbub, Markus Wagner , and Luigi Crema (2016). Multi-Objective Optimisation with Multiple Preferred Regions. In Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI), Melbourne, Australia.	
45. Didac Rodríguez Arbonès, Boyin Ding, Nataliia Y. Sergiienko, Markus Wagner (2016). Fast and Effective Multi-Objective Optimisation of Wave Energy Converters. In Proceedings of the 14th International Conference on Parallel Problem Solving from Nature (PPSN), Edinburgh, Scotland.	A
46. Markus Wagner (2016). Stealing items more efficiently with ants. In Proceedings of the 10 th International Conference on Swarm Intelligence (ANTS), Brussels, Belgium.	B
47. Shelvin Chand and Markus Wagner (2016). Fast Heuristics for the Multiple Traveling Thieves Problem. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO), Denver, USA.	A

48. Junhua Wu, Slava Shekh, Nataliia Sergiienko, Benjamin Cazzolato, Boyin Ding, Frank Neumann, and Markus Wagner (2016). Fast and effective optimisation of arrays of submerged wave energy converters. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO), Denver, USA.	A
49. Daniel Lückehe, Oliver Kramer, and Markus Wagner (2016). Constrained Evolutionary Wind Turbine Placement with Penalty Functions. In Proceedings of the IEEE World Congress on Computational Intelligence: Congress on Evolutionary Computation (CEC), Vancouver, Canada.	B
50. Mahmoud Bokhari, Thorsten Bormer, and Markus Wagner (2015). An Improved Beam-Search for Testing Formal Verification Systems. In Proceedings of 7th Symposium on Search-Based Software Engineering (SSBSE), Bergamo, Italy.	
51. Hayden Faulkner, Tom Schultz, Sergey Polyakovskiy, and Markus Wagner (2015). Fast and efficient heuristics for the Traveling Thief Problem. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Madrid, Spain.	A
52. Daniel Lückehe, Markus Wagner , and Oliver Kramer (2015). Self-Adaptive Evolutionary Wind Turbine Placement with Geo-Constraints. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Madrid, Spain.	A
53. Anh Quang Nguyen, Markus Wagner , and Frank Neumann (2014). User preferences for Approximation-Guided Multi-Objective Evolution. In Proceedings of the 10 th Int. Conference on Simulated Evolution and Learning (SEAL), Dunedin, New Zealand.	B
54. Mohammad Reza Bonyadi, Zbigniew Michalewicz, and Markus Wagner (2014). Beyond the edge of feasibility: analysis of bottlenecks. In Proceedings of the 10 th Int. Conference on Simulated Evolution and Learning (SEAL), Dunedin, New Zealand.	B
55. Samadhi Nallaperuma, Markus Wagner , and Frank Neumann (2014). Parameter Prediction based on Features of Evolved Instances for Ant Colony Optimization and the Traveling Salesperson Problem. In Proceedings of Parallel Problem Solving from Nature (PPSN), Ljubljana, Slovenia.	A
56. Markus Wagner (2014). Maximising Axiomatization Coverage and Minimizing Regression Testing Time. In Proceedings of the IEEE World Congress on Computational Intelligence: Congress on Evolutionary Computation (CEC), Beijing, China.	A
57. Markus Wagner and Frank Neumann (2014). Single- and Multi-Objective Genetic Programming: New Runtime Results for SORTING. In Proceedings of the IEEE World Congress on Computational Intelligence: Congress on Evolutionary Computation (CEC), Beijing, China.	A
58. Sergey Polyakovskiy, Mohammad Reza Bonyadi, Markus Wagner , Zbigniew Michalewicz, and Frank Neumann (2014). A Comprehensive Benchmark Set and Heuristics for the Travelling Thief Problem. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Vancouver, Canada.	A
59. Markus Wagner and Frank Neumann (2013). A Fast Approximation-Guided Evolutionary Multi-Objective Algorithm. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Amsterdam, The Netherlands.	A
60. Raymond Tran, Junhua Wu, Christopher Denison, Thomas Ackling, Markus Wagner , and Frank Neumann (2013). Fast and Effective Multi-Objective Optimisation of Wind Turbine Placement. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO), Amsterdam, The Netherlands.	A
61. Markus Wagner and Tobias Friedrich (2013). Efficient Parent Selection for Approximation-Guided Evolutionary Multi-Objective Optimization. In Proceedings of the IEEE Congress on Evolutionary Computation (CEC), Cancun, Mexico.	A
62. Anh Nguyen, Tommaso Urli, and Markus Wagner (2013). Single- and multi-objective genetic programming: new bounds for weighted order and majority (pre-conference title: Improved Computational Complexity Results for Weighted ORDER and MAJORITY). In Proceedings of Foundations of Genetic Algorithms XII (FOGA), Adelaide, Australia.	A*
63. Samadhi Nallaperuma, Markus Wagner , Frank Neumann, Bernd Bischl, Olaf Mersmann, and Heike Trautmann (2013). A Feature-Based Comparison of Local Search and the Christofides Algorithm for the Travelling Salesperson Problem. In Proceedings of Foundations of Genetic Algorithms XII (FOGA), Adelaide, Australia.	A*
64. Bernhard Beckert, Markus Wagner , and Thorsten Bormer (2013). A Metric for Testing Program Verification Systems. In Proceedings of the 7 th International Conference on Tests and Proofs (TAP), Budapest, Hungary.	B
65. Bernhard Beckert, Thorsten Bormer, and Markus Wagner (2013). Heuristically Creating Test Cases for Program Verification Systems. In Proceedings of the 10 th Metaheuristics International Conference (MIC), Singapore.	
66. Markus Wagner and Frank Neumann (2012). Parsimony Pressure versus Multi-Objective Optimization for Variable Length Representations. In Proceedings of 12 th International Conference on Parallel Problem Solving From Nature (PPSN), Sicily, Italy.	A
67. Tommaso Urli, Markus Wagner , and Frank Neumann (2012). Experimental Supplements to the Computational Complexity Analysis of Genetic Programming for Problems Modelling Isolated Program Semantics. In Proceedings of 12 th International Conference on Parallel Problem Solving From Nature (PPSN), Sicily, Italy.	A
68. Joseph Yuen, Sophia Gao, Markus Wagner , and Frank Neumann (2012). An Adaptive Data Structure for Evolutionary Multi-Objective Algorithms with Unbounded Archives. In Proceedings of the IEEE World Congress on Computational Intelligence: Congress on Evolutionary Computation (CEC), Brisbane, Australia.	A

69. Kalyan Veeramachaneni, Markus Wagner , Una-May O'Reilly and Frank Neumann (2012). Optimizing Energy Output and Layout Costs for Large Wind Farms using Particle Swarm Optimization. In Proceedings of the IEEE World Congress on Computational Intelligence: Congress on Evolutionary Computation (CEC), Brisbane, Australia.	A
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70. Olaf Mersmann, Bernd Bischl, Jakob Bossek, Heike Trautmann, Markus Wagner , and Frank Neumann (2012). Local Search and the Traveling Salesman Problem: A Feature-Based Characterization of Problem Hardness. In Proceedings of the Learning and Intelligent Optimization Conference (LION), Paris, France.	
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71. Benjamin Doerr, Daniel Johannsen, Timo Kötzing, Per Kristian Lehre, and Markus Wagner , and Carola Winzen (2011). Faster Black-Box Algorithms Through Higher Arity Operators. In Proceedings of the Foundations of Genetic Algorithms XI (FOGA), Schwarzenberg, Austria.	A*
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72. Timo Kötzing, Frank Neumann, Dirk Sudholt, and Markus Wagner (2011). Simple Max-Min Ant Systems and the Optimization of Linear Pseudo-Boolean Functions. In Proceedings of the Foundations of Genetic Algorithms (FOGA), Schwarzenberg, Austria.	A*
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73. Karl Bringmann, Tobias Friedrich, Frank Neumann, and Markus Wagner (2011). Approximation-Guided Evolutionary Multi-Objective Optimization. In Proceedings of the 21 st International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain.	A*
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74. Markus Wagner , Jareth Day, Diora Jordan, Trent Kroeger, and Frank Neumann (2011). Evolving Pacing Strategies for Team Pursuit Track Cycling. In Proceedings of the 9 th Metaheuristics International Conference (MIC), Udine, Italy. [Best Paper Award, 120 accepted papers]	
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75. Thorsten Bormer and Markus Wagner (2010). Towards Testing a Verifying Compiler. In Pre-Proceedings of the International Conference on Formal Verification of Object-Oriented Software (FoVeOOS), Paris, France.	
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76. Claudia Obermaier and Markus Wagner (2009). Towards an Evolved Lower Bound for the Most Circular Partition of a Square. In Proceedings of the 2009 IEEE Congress on Evolutionary Computation (CEC), Trondheim, Norway.	A
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77. Bernhard Beckert and Markus Wagner (2009). Probabilistic Models for the Verification of Human-Computer Interaction. In Proceedings of the 32 nd Annual German Conference on Artificial Intelligence (KI), Paderborn, Germany.	C
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78. Cody Boisclair and Markus Wagner (2008). Better Huffman Coding via Genetic Algorithm. In Proceedings of the 2008 International Conference on Genetic and Evolutionary Methods (GEM), Las Vegas, USA.	
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[Workshop Papers, Conference Posters, Abstracts, and other Articles](#)

79. Asad Sagharia, Shima Rahmani, Amir-Reza Kosari, Markus Wagner (2017). Optimal Orbit of a Typical Earth Observation Satellite with the purpose of Propellant and Payload Mass Minimization. In Proceedings of the 68 th International Astronautical Congress, Adelaide, Australia.	
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80. Shima Rahmani, Asad Saghari, Masoud Ebrahimi, Markus Wagner (2017). Reliability-based orbital design optimisation for an Earth observation satellite. In Proceedings of the 68 th International Astronautical Congress, Adelaide, Australia.	
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81. Mahmoud A. Bokhari, Bobby R. Bruce, Brad Alexander and Markus Wagner (2017). Deep Parameter Optimisation on Android Smartphones for Energy Minimisation - A Tale of Woe and a Proof-of-Concept. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO) Companion, Genetic Improvement Workshop, Berlin, Germany.	
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82. Mohamed El Yafrani, Shelvin Chand, Markus Wagner , Aneta Neumann, and Belaid Ahoud (2017). A Case Study of Multi-objectiveness in Multi-component Problems. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO) Companion, Berlin, Germany.	
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83. Mahmoud Bokhari, Bo Zhou, Yuanzhong Xia, Brad Alexander, and Markus Wagner (2017). Validation of Internal Meters of Mobile Android Devices. Technical Report.	
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84. Boyin Ding, Leandro Souza Pinheiro da Silva, Nataliia Sergiienko, Fantai Meng, Jonathan David Piper, Luke Bennetts, Markus Wagner and Benjamin Cazzolato (2017). Study of fully submerged point absorber wave energy converter - modelling, simulation and scaled experiment. In Proceedings of the 32 nd International Workshop on Water Waves and Floating Bodies, Dalian, China.	
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85. Nataliia Sergiienko, Boyin Ding, Benjamin Cazzolato, Junhua Wu, Markus Wagner , Maziari Arjomandi (2016). An array of the three-tether wave energy converters. In Proceedings of the Australian Ocean Renewable Energy Symposium, Melbourne, Australia.	
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86. Markus Wagner (2016). Speeding up the proof strategy in formal software verification. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO) Companion, Genetic Improvement Workshop, Denver, USA.	
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87. Mahmoud Bokhari and Markus Wagner (2016). Optimising energy consumption on Android mobile phones. In Proceedings of the Genetic and Evolutionary Computation Conference (GECCO) Companion, Genetic Improvement Workshop, Denver, USA. [Best Presentation Award]	
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88. Mahmoud Bokhari and Markus Wagner (2015). Local Beam Search to Improve Test Coverage of Verification Systems. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO) Companion, Madrid, Spain.	
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89. Samadhi Nallaperuma, Markus Wagner , and Frank Neumann (2013). Ant colony optimisation and the traveling salesperson problem - hardness, features and parameter. In Proceedings of Genetic and Evolutionary Computation Conference (GECCO) Companion, Amsterdam, The Netherlands.	
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90. Samadhi Nallaperuma, Markus Wagner , Frank Neumann, Bernd Bischl, Olaf Mersmann, and Heike Trautmann, (2012). Features of Easy and Hard Instances for Approximation Algorithms and the Travelling Salesperson Problem. Automated	
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Selection and Tuning of Algorithms Workshop, at the 12th International Conference on Parallel Problem Solving From Nature (PPSN), Sicily, Italy.

91. Frank Neumann, Una-May O'Reilly, Kalyan Veeramachaneni, and **Markus Wagner** (2011). Optimizing the Layout of 1000 Wind Turbines. In Proceedings of the European Wind Energy Association (EWEA), Brussels, Belgium.
 92. **Markus Wagner** and Frank Neumann (2011). Computational Complexity Results for Genetic Programming and the Sorting Problem. Internal technical report.
 93. **Markus Wagner** (2009). Probabilistic User Models for the Verification of Human-Computer Interaction. In Proceedings of the GI Informatiktage, Bonn, Germany.
 94. Tomasz Oliwa and **Markus Wagner** (2008). Composing Music with Neural Networks and Probabilistic Finite-State Machines. In Proceedings of the 6th European Workshop on Evolutionary and Biologically Inspired Music (EvoMUSART), Naples, Italy.
 95. Gerd Beuster, Niklas Henrich, and **Markus Wagner** (2006). Real World Verification – Experiences from the Verisoft Email Client. In Proceedings of the FLoC'06 Workshop on Empirical Successfully Computerized Reasoning (ESCoR), Seattle, USA.
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All publications are available online or upon request: <http://cs.adelaide.edu.au/~markus/publications.html>

All citations can be found online: <http://scholar.google.com.au/citations?hl=en&user=9cbh6PoAAAAJ>

ERA stands for “Excellence in Research for Australia”, which is a research management initiative by the Australian Government.

The impact factors are taken from the journal's page or from <http://www.scimagojr.com>, if not available at the journal.

The listed CORE ranking is from the year in which the event took place.

Services to the Community

Chairing Activities

1. General Chair – Australasian Conference on Artificial Life and Computational Intelligence (ACALCI) 2018
2. Program Chair – Australasian Conference on Artificial Life and Computational Intelligence (ACALCI) 2017
3. Chair for Competitions – Genetic and Evolutionary Computation Conference (GECCO) 2019
4. Chair for Competitions – Genetic and Evolutionary Computation Conference (GECCO) 2018
5. Chair for Tutorials – Australasian Joint Conference on Artificial Intelligence (AI) 2018
6. Chair for Workshops – Genetic and Evolutionary Computation Conference (GECCO) 2017
7. Chair for Workshops – Genetic and Evolutionary Computation Conference (GECCO) 2016
8. Founding Chair (2014) and Chair (2015) – IEEE Computational Intelligence Society “Task Force on Computational Intelligence in the Energy Domain” (in 2016 & 2017: Co-Chair)
9. Chair – IEEE Computational Intelligence Society “University Curricula” 2017
10. Chair – IEEE Computational Intelligence Society “University Curricula” 2016
11. Chair – IEEE Computational Intelligence Society “Educational Material” 2015
12. Chair – IEEE Computational Intelligence Society “Educational Repository” 2014

Editorial Activities

13. Associate Editor of IEEE Transactions on Emerging Topics in Computational Intelligence 2019
14. Guest Editor of the Special Issue “Benchmarking of Computational Intelligence Algorithms” at Computational Intelligence Journal 2018, moved to the Applied Soft Computing Journal in July 2018
15. Managing Editor of the Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI) 2018
16. Associate Editor on the Editorial Board of “Optimization”, a specialty of Frontiers in Applied Mathematics and Statistics 2015/2016/2017
17. Managing Guest Editor for the Special Issue “Optimization Methods in Renewable Energy Systems Design” (Elsevier Renewable Energy Journal, >130 submissions) 2015
18. Guest Editor for the Special Issue “Computational Energy Management in Smart Grids” (Elsevier Neurocomputing Journal) 2014

Other Activities

19. Co-Organiser – GECCO Workshop Genetic Improvement of Software (GI@GECCO) 2019
20. Co-Organiser – GECCO Workshop Black Box Discrete Optimization Benchmarking (BB-DOB) 2019
21. Co-Organiser – EMO 2019 Competition “Optimisation of Problems with Multiple Interdependent Components”
22. Co-Organiser – CEC 2019 Competition “Evolutionary Computation in Uncertain Environments: A Smart Grid Application”
23. Co-Organiser – CEC 2019 Special Session on Evolutionary Algorithms for Optimisation in the Energy Domain
24. Co-Organiser – CEC 2019 Special Session on Genetic Improvement and Search-Based Software Engineering
25. Co-Organiser – CEC 2019 Special Session on Benchmarking of Evolutionary Algorithms for Discrete Optimization (BEADO)
26. Co-Organiser – Adelaide Autumn School on Software Engineering 2018
27. Co-Organiser – PPSN Workshop Black Box Discrete Optimization Benchmarking (BB-DOB) 2018
28. Co-Organiser – GECCO Workshop Black Box Discrete Optimization Benchmarking (BB-DOB) 2018
29. Main-Organiser – GECCO Workshop Genetic Improvement of Software (GI@GECCO) 2018
30. Co-Organiser – International Workshop on Benchmarking of Computational Intelligence Algorithms (BOCIA) 2018
31. Co-Organiser – IEEE CEC 2017 / GECCO 2017 Competition “Optimisation of Problems with Multiple Interdependent Components”
32. Co-Organiser – GECCO Workshop on Evolutionary Algorithms for Smart Grids (SmartEA) 2017
33. Main-Organiser – NII Shonan Meeting “Data-Driven Search-Based Software Engineering” 2017
34. Co-Organiser – IEEE WCCI/CEC 2016 Special Session “Genetic Improvement of Software”
35. Co-Organiser – IEEE CEC 2015 Competition “Optimisation of Problems with Multiple Interdependent Components”

36. Co-Organiser – IEEE CEC 2015 Special Session “Evolutionary Computation in the Energy Domain”
 37. Co-Organiser – PPSN 2014 Workshop “Renewable Energy and Evolutionary Computation”
 38. Co-Organiser – Uni-Tech Outreach Activity “My First Red-Eye Removal” 2015
 39. Co-Organiser – IEEE WCCI/CEC 2014 Competition “Optimisation of Problems with Multiple Interdependent Components”
 40. Co-Organiser – IEEE WCCI/CEC 2014 Special Session “Heuristic Methods for Multi-Component Optimization Problems”
 41. Co-Organiser – Uni-Tech Outreach Activity “My First Red-Eye Removal” 2014
 42. Co-Organiser – Colloquium on Combinatorics (KOLKOM) Saarbrücken 2010
 43. Co-Organiser – International Conference Summer Koblenz 2005
 44. Committee Member – IEEE Computational Intelligence Society “Theory Task Force” 2018
 45. Committee Member – IEEE Computational Intelligence Society “Intelligent Systems Applications Technical Committee 2017”
 46. Committee Member – IEEE Computational Intelligence Society “Webinars Committee” 2016
 47. Committee Member – IEEE Computational Intelligence Society “Intelligent Systems Applications Technical Committee 2016”
 48. Committee Member – IEEE Computational Intelligence Society “Education Committee” 2015
 49. Committee Member – IEEE Computational Intelligence Society “Multimedia Subcommittee” 2015
 50. Committee Member – IEEE Computational Intelligence Society “Intelligent Systems Applications Technical Committee 2015”
 51. Committee Member – IEEE Computational Intelligence Society “Education Committee” 2014
 52. Committee Member – IEEE Computational Intelligence Society “Multimedia Subcommittee” 2014
 53. Committee Member – IEEE Computational Intelligence Society “Intelligent Systems Applications Technical Committee 2014”
 54. Task Force Member - IEEE Computational Intelligence Society Task Force on Many-Objective Optimisation 2017
 55. Volunteer – The University of Adelaide “Open Day” 2017
 56. Volunteer – The University of Adelaide “Open Day” 2016
 57. Volunteer – The University of Adelaide “Open Day” 2015
 58. Volunteer – The University of Adelaide “Open Day” 2014
 59. Volunteer – Young Women in Technology (The University of Adelaide) 2013
 60. Volunteer – The University of Adelaide “Open Day” 2013
 61. Volunteer – ACM South Pacific Regional Programming Contest 2011
 62. Volunteer – South Australian Science and Engineering Super Challenge 2011 (stage coordinator)
- PC Member
63. International Joint Conference on Artificial Intelligence (IJCAI) 2019
 64. Genetic Improvement @ ICSE Workshop 2019
 65. Genetic and Evolutionary Computation Conference (GECCO) 2019 “Search-Based Software EngineeringTrack”
 66. Foundations of Genetic Algorithms XV (FOGA) 2019
 67. EvoApplications (EvoApps) 2019
 68. Australasian Conference on Artificial Intelligence (AI) 2018
 69. Workshop at PPSN 2018 on Investigating Optimization Problems from Machine Learning and Data Analysis
 70. 10th Symposium on Search-Based Software Engineering (SSBSE) 2018
 71. 24th Constraint Programming (CP) 2018
 72. Genetic Improvement @ ICSE Workshop 2018
 73. 15th International Conference on Parallel Problem Solving from Nature (PPSN) 2018
 74. Genetic and Evolutionary Computation Conference (GECCO) 2018 “Evolutionary Combinatorial Optimization and Metaheuristics Track”
 75. International Joint Conference on Artificial Intelligence (IJCAI) 2018
 76. 5th International Workshop on Computational Energy Management in Smart Grids (CEMiSG) 2018
 77. Genetic and Evolutionary Computation Conference (GECCO) 2017 “Evolutionary Combinatorial Optimization and Metaheuristics Track”
 78. ECML/PKDD Fifth International Workshop on Data Analytics for Renewable Energy Integration (DARE) 2017
 79. 11th Int. Conference on Simulated Evolution and Learning (SEAL) 2017
 80. 3rd International Conference on Machine learning, Optimization & Big Data (MOD) 2017
 81. 30th Australasian Joint Conference on Artificial Intelligence (AI) 2017
 82. 13th IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI) 2017
 83. 4th International Workshop on Computational Energy Management in Smart Grids (CEMiSG) 2017
 84. International Joint Conference on Artificial Intelligence (IJCAI) 2017
 85. IEEE Congress on Evolutionary Computation (CEC) 2017 “Theoretical Foundations of Bio-inspired Computation Track”
 86. Genetic Improvement @ GECCO 2017
 87. Genetic and Evolutionary Computation Conference (GECCO) 2016 “Evolutionary Combinatorial Optimization and Metaheuristics Track”
 88. International Conference on Evolutionary Multi-Objective Optimisation (EMO) 2016
 89. Evo*Conference: EvoEnergy 2017
 90. Foundations of Genetic Algorithms XIV (FOGA) 2017
 91. International Joint Conference on Artificial Intelligence (IJCAI) 2016
 92. 14th International Conference on Parallel Problem Solving From Nature (PPSN) 2016
 93. 20th Asia-Pacific Symposium on Intelligent and Evolutionary Systems (IES) 2016
 94. IEEE Congress on Evolutionary Computation (CEC) 2016 “Theoretical Foundations of Bio-inspired Computation Track”

95. 3rd International Workshop on Computational Energy Management in Smart Grids (CEMiSG) 2016
 96. Evo*Conference: EvoEnergy 2016
 97. PlanSOpt@AI-15: AI-2015 Workshop on Planning, Search, and Optimization 2015
 98. Foundations of Genetic Algorithms XIII (FOGA) 2015
 99. Evo*Conference: EvoEnergy 2015
 100. 2nd International Workshop on Computational Energy Management in Smart Grids (CEMiSG) 2015
 101. Learning and Intelligent Optimization Conference (LION) 2015
 102. IEEE Congress on Evolutionary Computation (CEC) 2015 "Theoretical Foundations of Bio-inspired Computation Track"
 103. IEEE Symposium Series on Computational Intelligence (SSCI) 2014 "Special Session on Benchmarking and Testing for Production and Logistics Optimization"
 104. IEEE Congress on Evolutionary Computation (CEC) 2014 "Theoretical Foundations of Bio-inspired Computation Track"
 105. International Conference on Computational Science (ICCS) 2014 "Computational Optimisation in the Real World Workshop"
 106. 13th International Conference on Parallel Problem Solving from Nature (PPSN) 2014
 107. 12th European Conference on Artificial Life (ECAL) 2013
 108. 12th International Conference on Artificial Immune Systems (ICARIS) 2013
 109. Genetic and Evolutionary Computation Conference (GECCO) 2013 "Evolutionary Multi-Objective Optimization Track"
 110. IEEE Congress on Evolutionary Computation (CEC) 2013 "Theoretical Foundations of Bio-inspired Computation"
 111. Learning and Intelligent Optimization Conference (LION) 2013
 112. IEEE Symposium Series on Computational Intelligence (SSCI) 2013 "Special Session on Scalable Evolutionary Logistic Planning"
 113. 11th International Conference on Artificial Immune Systems (ICARIS) 2012
 114. 12th International Conference on Parallel Problem Solving From Nature (PPSN) 2012
 115. Genetic and Evolutionary Computation Conference (GECCO) 2012 "Evolutionary Multi-Objective Optimization Track"
 116. Genetic and Evolutionary Computation Conference (GECCO) 2011 "Theory Track"
- Reviewer
117. Natural Sciences and Engineering Research Council of Canada – Discovery Grants 2019
 118. MIT Press Evolutionary Computation Journal (ECJ) 2018
 119. IEEE Transactions on Evolutionary Computation (TEVC) 2018
 120. Elsevier Theoretical Computer Science (TCS) 2018
 121. Applied Soft Computing (ASOC) 2018
 122. IEEE Transactions on Software Engineering (TSE) 2017
 123. Swarm and Evolutionary Computation (SWEVO) 2017
 124. IEEE Transactions on Evolutionary Computation (TEVC) 2017
 125. MIT Press Evolutionary Computation Journal (ECJ) 2017
 126. International Transactions in Operational Research (ITOR) 2017
 127. Springer Natural Computing (NACO) 2017
 128. IEEE Transactions on Software Engineering (TES) 2016
 129. IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI) 2016
 130. IEEE Transactions on Evolutionary Computation (TEVC) 2016
 131. IEEE Transactions on Cybernetics (CYB) 2016
 132. MIT Press Evolutionary Computation Journal (ECJ) 2016
 133. Elsevier Applied Energy (APEN) 2015
 134. IEEE Transactions on Design Automation of Electronic Systems (TODAES) 2015
 135. IEEE Computational Intelligence Magazine (CIM) 2015
 136. IEEE Transactions on Cybernetics (CYB) 2015
 137. IEEE Transactions on Power Engineering Systems (PES) 2015
 138. MIT Press Evolutionary Computation Journal (ECJ) 2015
 139. IEEE Transactions on Evolutionary Computation (TEVC) 2015
 140. Elsevier Journal of Neurocomputing (NEUCOM) 2015
 141. Informs Journal on Computing (JOC) 2014
 142. Springer Natural Computing (NACO) 2014
 143. IEEE Symposium Series on Computational Intelligence (SSCI) 2014
 144. Elsevier Cleaner Production (JCLEPRO) 2014
 145. Elsevier Energy Conversion and Management (ECM) 2014
 146. IEEE Transactions on Evolutionary Computation (TEVC) 2014
 147. MIT Press Evolutionary Computation Journal (ECJ) 2014
 148. Emerald Engineering Computations (ENCOM) 2014
 149. IEEE Congress on Evolutionary Computation (CEC) 2014
 150. Elsevier Theoretical Computer Science (TCS) 2013
 151. Elsevier Renewable Energy Journal (RENE) 2013
 152. Springer Journal of Mathematical Modelling and Algorithms in Operations Research (JMMA) 2013
 153. Elsevier Journal of Neurocomputing (NEUCOM) 2013
 154. Emerald Engineering Computations (ENCOM) 2013
 155. IEEE Transactions on Evolutionary Computation (TEVC) 2013

156. IEEE Transactions on Cybernetics (CYB) 2013
157. MIT Press Evolutionary Computation Journal (ECJ) 2013
158. IEEE Congress on Evolutionary Computation (CEC) 2013
159. 12th International Symposium on Experimental Algorithms (SEA) 2013
160. Elsevier Journal of Systems and Software (JSS) 2012
161. Springer Journal of Autonomous Agents and Multi-Agent Systems (JAAMAS) 2012
162. IEEE Congress on Evolutionary Computation (CEC) 2012
163. IEEE Transactions on Evolutionary Computation (TEVC) 2011
164. 24th Australasian Joint Conference on Artificial Intelligence (AI) 2011
165. 10th International Conference on Artificial Immune Systems (ICARIS) 2011
166. 15th Portuguese Conference on Artificial Intelligence (EPIA) 2011
167. 28th Int. Symposium on Theoretical Aspects of Computer Science (STACS) 2011
168. 11th International Conference on Parallel Problem Solving From Nature (PPSN) 2010
169. Elsevier Information Processing Letters (IPL) 2010
170. MIT Press Evolutionary Computation Journal (ECJ) 2010
171. 7th Int. Conference of Numerical Analysis and Applied Mathematics (ICNAAM) 2009
172. 3rd Indian International Conference on Artificial Intelligence (IICAI) 2007

Note: being a PC Member or higher typically entails the reviewer role.

Attended Events, Invited Talks

1. Tutorial – IEEE CEC 2019: Genetic Improvement of Software
2. Talk – Genetic and Evolutionary Computation Conference (GECCO), Kyoto, Japan 2018
3. Talk – Hasso Plattner Institute, Potsdam, Germany 2018
4. Talk – Institute de Recherches Interdisciplinaires et de Developements en Intelligence Artificielle, Brussels, Belgium, 2018
5. Talk – Machine Learning Lab, Albert-Ludwigs-Universität Freiburg, Germany 2018
6. Opening Keynote Speaker – Symposium on Evolutionary Computation, Hefei, China 2017
7. Talk - Institute of Applied Optimization, Hefei University, Hefei, China 2017
8. 2 Talks – 68th International Astronautical Congress (IAC), Adelaide, Australia 2017
9. 2 Talks & 1 Poster – Genetic and Evolutionary Computation Conference (GECCO), Berlin, Germany, 2017
10. Talk – Hasso Plattner Institute, Potsdam, Germany 2017
11. Talk – 2nd International Summer School on Search-Based Software Engineering, Malaga, Spain, 2017
12. Talk (invited lecturer) – Data 61’s 5th International Optimisation Summer School, Kioloa, Australia 2017
13. Talk – Department of Informatics, University of Leicester, UK 2016
14. Talk – Algorithms Group, University of Sheffield, UK 2016
15. Talk – Automated Scheduling, Optimisation and Planning Research Group, University of Nottingham, UK 2016
16. 2 Talks (invitation-only event) – Dagstuhl Seminar “Automated Algorithm Selection and Configuration”, Dagstuhl, Germany 2016
17. Talk – Centre for Research on Evolution, Search and Testing (CREST), University College London, UK 2016
18. Poster – 14th International Conference on Parallel Problem Solving from Nature (PPSN), Edinburgh, UK 2016
19. 2 Talks & 2 Posters – Configuration and Selection of Algorithms Workshop (COSEAL), Eindhoven, The Netherlands 2016
20. Talk & Poster – 10th International Conference on Swarm Intelligence (ANTS), Brussels, Belgium 2016
21. Attendance – 6th International Workshop on Model-based Metaheuristics (Matheuristics), Brussels, Belgium 2016
22. Attendance – IEEE World Congress on Computational Intelligence (WCCI), Vancouver, Canada 2016
23. Talk – Genetic and Evolutionary Computation Conference (GECCO), Denver, USA 2016
24. Talk – School of Computer Science, The University of Adelaide, Adelaide Australia 2016
25. Talk – Albert Ludwig University Freiburg, Germany 2015
26. Talk – Hasso Plattner Institute, Potsdam, Germany 2015
27. 2 Talks, 1 Poster - Genetic and Evolutionary Computation Conference (GECCO), Madrid, Spain 2015
28. Attendance - Becoming an Effective Supervisor or Teacher, The University of Adelaide, Adelaide, Australia 2015
29. Talk – School of Computer Science, The University of Adelaide, Adelaide Australia 2015
30. Opening Keynote Speaker – 2nd Workshop on System Integration of Renewable Energy (WSIRE), Oldenburg, Germany 2014
31. Talk (invitation-only event) – NII Shonan Meeting “Computational Intelligence for Software Engineering”, Shonan Village Centre, Japan, 2014
32. Talk – Lehrstuhl für Wirtschaftsinformatik und BWL, Johannes Gutenberg Universität, Germany 2014
33. Attendance – South Australian Renewable Energy Institute (SAREI) Technical Symposium, Adelaide, Australia 2014
34. 2 Talks, 1 Competition, 1 Special Session – IEEE World Congress on Computational Intelligence: Congress on Evolutionary Computation (WCCI/CEC), Beijing, China 2014
35. Attendance – 2nd International Optimisation Summer School, Kioloa, Australia 2014
36. Attendance – Empowering more effective and enjoyable teaching, Adelaide, Australia 2013
37. Talk – 10th Metaheuristics International Conference (MIC), Singapore 2013
38. Talk – Genetic and Evolutionary Computation Conference (GECCO), Amsterdam, The Netherlands 2013
39. Talk (invitation-only event) – Dagstuhl Seminar “Computer Science in High Performance Sport”, Dagstuhl, Germany 2013
40. Attendance – Felder-Brent “Effective Teaching” Workshop, Adelaide, Australia 2013

41. Attendance – Foundations of Genetic Algorithms XII (FOGA), Adelaide, Australia 2013
42. Talk – School of Computer Science, The University of Adelaide, Adelaide, Australia 2013
43. Attendance – 1st International Optimisation Summer School, Kioloa, Australia 2013
44. Talk – Dipartimento di Ingegneria Elettrica, Università degli Studi di Udine, Udine, Italy, 2012
45. 2 Posters, 1 Talk – 12th International Conference on Parallel Problem Solving From Nature (PPSN), Sicily, Italy 2012
46. Attendance – 21st Int. Symposium on Mathematical Programming (ISMP), Berlin, Germany 2012
47. Talk – Evolutionary Computation and Machine Learning Group, RMIT University, Melbourne, Australia 2012
48. Talk – Lehrstuhl für Theoretische Informatik I, Friedrich-Schiller-Universität Jena, Germany 2012
49. Talk – School of Computer Science, The University of Adelaide, Adelaide, Australia 2012
50. Attendance – AIESEC State Conference, Piccadilly, Australia 2012
51. Attendance – Integrated Planning and Optimization Summit (IPOS), Adelaide, Australia 2012
52. Talk – Sobolev Institute of Mathematics, Novosibirsk, Russia 2012
53. Poster – HDR Poster Day, School of Computer Science, Adelaide, Australia 2011
54. Talk – China Nine / Group of Eight HDR Forum "Clean Energy and Sustainable Future", Beijing, China 2011
55. Talk – 9th Metaheuristics International Conference (MIC), Udine, Italy 2011
56. Poster – 21st International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain 2011
57. Talk – 5th Workshop on Theory of Randomized Search Heuristics (ThRaSH), Kopenhagen, Denmark
58. Talk – Max Planck Institute for Informatics, Saarbrücken, Germany 2011
59. Talk – CSIRO Information and Communication Technologies Centre, Sydney, Australia 2011
60. Talk – School of Computer Science, The University of Adelaide, Adelaide, Australia 2011
61. Talk – Foundations of Genetic Algorithms XI (FOGA), Schwarzenberg, Austria 2011
62. Attendance – Colloquium on Combinatorics (KOLKOM), Saarbrücken, Germany 2010
63. Talk – Technical University Dortmund, Dortmund, Germany 2010
64. Talk – Int. Conference on Formal Verification of Object-Oriented Software (FoVeOOS), Paris, France
65. Poster – Interdisciplinary College 2010 Play, Act and Learn (IK), Günne at Lake Möhnesee, Germany
66. Poster – 32nd Annual German Conference on Artificial Intelligence (KI), Paderborn, Germany
67. Talk – IEEE Congress on Evolutionary Computation (CEC), Trondheim, Norway 2009
68. Poster – GI Informatiktage 2009, Bonn, Germany 2009
69. Talk – 7th KeY Symposium, Gothenburg, Sweden 2008
70. Poster – 6th European Workshop on Evolutionary and Biologically Inspired Music, Art and Design (EvoMusArt), Naples, Italy 2008
71. Talk – 5th KeY Symposium, Speyer, Germany 2006
72. Attendance – International Conference Summer, Koblenz, Germany 2005
73. Talk – 4th KeY Symposium, Lökeberg, Sweden 2005
74. Attendance – German Verification Day, Oldenburg, Germany 2005