Doğan Çörüş

Curriculum Vitae

Education

2012–2016	**PhD in Computer Science**, *University of Nottingham*, Nottingham, Vice-chancellor's Scholarship for Research Excellence.
2010–2012	**MSc in Industrial Engineering and Operations Management**, *Koc University*, Istanbul, Full Scholarship.
2005–2010	**BSc in Industrial Engineering**, *Koc University*, Istanbul, Full Scholarship.

PhD Thesis

Title	Runtime analysis of evolutionary algorithms with complex fitness evaluation mechanisms
Supervisors	Per Kristian Lehre and David Hodge

Experience

Research

2020–present	**Visiting Assistant Professor**, *Kadir Has University*, Istanbul.
2015–2020	**Research Associate in Rigorous Runtime Analysis of Bio-Inspired Computing (Rigorous Research) Project** , *University of Sheffield*, Sheffield, EPSRC grant (£1.2M).
2012–2015	**PhD student in Speed of Adaptation in Population Genetics and Evolutionary Computation (SAGE) Project**, *University of Nottingham*, Nottingham, ERC grant (€2M).

Teaching

2020–present	**Visiting Assistant Professor**, *Kadir Has University*, Istanbul.
2016–2020	**Supporting role in supervising PhD Candidate Donya Yazdani** , *University of Sheffield*, Sheffield.
2014	**Demonstrator for the course "Introduction to Algorithms"**, *University of Nottingham*, Nottingham.

| 2012 | **Demonstrator for the course "Modeling and Simulation",** *Koc University*, Istanbul. |
| 2011 | **Demonstrator for the course "Facilities Planning"**, *Koc University*, Istanbul. |

Track Record

Citations	**331**.
h-index	**11**.
i10-index	**11**.

Community Standing

Program Committee

Genetic and Evolutionary Computation Conference, *GECCO*.

Foundations Of Genetic Algorithms, *FOGA*.

International Conference in Parallel Problem Solving from Nature, *PPSN*.

Journal Reviewer

Theoretical Computer Science.

Algorithmica.

IEEE Transactions on Evolutionary Computation.

Languages

English	C2
Turkish	C2
French	B1

Publications

[1] Dogan Corus and Pietro S Oliveto. On the benefits of populations for the exploitation speed of standard steady-state genetic algorithms. In *Proceedings of the Genetic and Evolutionary Computation Conference*, pages 1452–1460, 2019.

[2] Dogan Corus, Pietro S Oliveto, and Donya Yazdani. On inversely proportional hypermutations with mutation potential. In *Proceedings of the Genetic and Evolutionary Computation Conference*, pages 215–223, 2019.

[3] Dogan Corus, Pietro S Oliveto, and Donya Yazdani. When hypermutations and ageing enable artificial immune systems to outperform evolutionary algorithms. *Theoretical Computer Science*, 2019.

[4] Dogan Corus, Pietro S Oliveto, and Donya Yazdani. Artificial immune systems can find arbitrarily good approximations for the np-hard number partitioning problem. *Artificial Intelligence*, 274:180–196, 2019.

[5] Dogan Corus, Pietro S Oliveto, and Donya Yazdani. Artificial immune systems can find arbitrarily good approximations for the np-hard partition problem. In *International Conference on Parallel Problem Solving from Nature*, pages 16–28. Springer, Cham, 2018.

[6] Dogan Corus, Pietro S Oliveto, and Donya Yazdani. Fast artificial immune systems. In *International Conference on Parallel Problem Solving from Nature*, pages 67–78. Springer, Cham, 2018.

[7] Dogan Corus and Pietro S Oliveto. Standard steady state genetic algorithms can hillclimb faster than evolutionary algorithms using standard bit mutation. In *Proceedings of the Genetic and Evolutionary Computation Conference Companion*, pages 11–12, 2018.

[8] Dogan Corus. *Runtime analysis of evolutionary algorithms with complex fitness evaluation mechanisms.* PhD thesis, University of Nottingham, 2018.

[9] Dogan Corus and Per Kristian Lehre. Theory driven design of efficient genetic algorithms for a classical graph problem. In *Recent Developments in Metaheuristics*, pages 125–140. Springer, Cham, 2018.

[10] Dogan Corus, Jun He, Thomas Jansen, Pietro S Oliveto, Dirk Sudholt, and Christine Zarges. On easiest functions for mutation operators in bio-inspired optimisation. *Algorithmica*, 78(2):714–740, 2017.

[11] Dogan Corus, Pietro S Oliveto, and Donya Yazdani. On the runtime analysis of the opt-ia artificial immune system. In *Proceedings of the Genetic and Evolutionary Computation Conference*, pages 83–90, 2017.

[12] Dogan Corus, Duc-Cuong Dang, Anton V Eremeev, and Per Kristian Lehre. Level-based analysis of genetic algorithms and other

search processes. *IEEE Transactions on Evolutionary Computation*, 22(5):707–719, 2017.

[13] Dogan Corus and Pietro S Oliveto. Standard steady state genetic algorithms can hillclimb faster than mutation-only evolutionary algorithms. *IEEE Transactions on Evolutionary Computation*, 22(5):720–732, 2017.

[14] Dogan Corus, Per Kristian Lehre, Frank Neumann, and Mojgan Pourhassan. A parameterised complexity analysis of bi-level optimisation with evolutionary algorithms. *Evolutionary computation*, 24(1):183–203, 2016.

[15] Dogan Corus, Jun He, Thomas Jansen, Pietro S Oliveto, Dirk Sudholt, and Christine Zarges. On easiest functions for somatic contiguous hypermutations and standard bit mutations. In *Proceedings of the 2015 Annual Conference on Genetic and Evolutionary Computation*, pages 1399–1406, 2015.

[16] Tiago Paixão, Golnaz Badkobeh, Nick Barton, Doğan Çörüş, Duc-Cuong Dang, Tobias Friedrich, Per Kristian Lehre, Dirk Sudholt, Andrew M Sutton, and Barbora Trubenová. Toward a unifying framework for evolutionary processes. *Journal of Theoretical Biology*, 383:28–43, 2015.

[17] Dogan Corus, Duc-Cuong Dang, Anton V Eremeev, and Per Kristian Lehre. Level-based analysis of genetic algorithms and other search processes. In *International Conference on Parallel Problem Solving from Nature*, pages 912–921. Springer, Cham, 2014.

[18] Dogan Corus, Per Kristian Lehre, and Frank Neumann. The generalized minimum spanning tree problem: a parameterized complexity analysis of bi-level optimisation. In *Proceedings of the 15th annual conference on Genetic and evolutionary computation*, pages 519–526, 2013.