

Name Sang-il Oum

Affiliation KAIST

Department of Mathematical Sciences

291 Daehak-ro Yuseong-gu Daejeon 34141 South Korea

<http://mathsci.kaist.ac.kr/~sangil/> / sangil@kaist.edu



Education

2001-2005 *Ph.D. in Applied and Computational Mathematics, Princeton University*
Advisor: Prof. Paul Seymour. Thesis title: *Graphs of bounded rank-width*

1994-1998 *B.S. in Mathematics, KAIST*

Positions held

2016-present *Professor, Department of Mathematical Sciences, KAIST*

2011-2016 *Associate Professor, --- (Tenured: Sep. 2013)*

2008-2011.2 *Assistant Professor, ---*

2007-2007 *Post-doctoral fellow, Department of Combinatorics and Optimization, University of Waterloo*

2005-2006 *Visiting Assistant Professor, School of Mathematics, Georgia Institute of Technology*

Awards & Honors

Young Scientist Award by the Korean government (2012), Excellent Research Paper Award by the Korean Mathematical Society (2010), Ewon Assistant Professorship by KAIST (2010), TJ Park Junior Faculty Fellowship (2009), Special Contribution Award by the Korean Mathematical Society (2015), A founding member of Young Korean Academy of Science and Technology (2017)

Current editorial boards

Journal of the Korean Mathematical Society
(*Discrete Applied Mathematics*, Guest Editor for the special issue on graph classes, width parameters, and optimization. 2017 and 2013)

Selected committee work

Program Committee Member for 16th Scandinavian Symposium and Workshops on Algorithm Theory (SWAT2018), 13th International Symposium on Parameterized and Exact Computation (IPEC2018), 43rd International Workshop on Graph Theoretic Concepts in Computer Science (WG2017), 27th International Symposium on Algorithms and Computation (ISAAC2016), 21st European Symposium on Algorithms (ESA2013), 37th International Workshop on Graph Theoretic Concepts in Computer Science (WG2011), 7th Annual Conference on Theory and Applications of Models of Computation (TAMC2010), 35th International Workshop on Graph Theoretic Concepts in Computer Science (WG2009), 2nd Canadian Discrete and Algorithmic Mathematics Conference (CanaDAM2009).

Member of ICM2014 Local Organizing Committee (2014), Korean Math Olympiad Committee (2010-).

Five selected (recent) publications

1. Chun-Hung Liu and **Sang-il Oum**. "Partitioning H -minor-free graphs into three subgraphs with no large components". In: *J. Combin. Theory Ser. B* 128 (2018), pp. 114–133. DOI: 10.1016/j.jctb.2017.08.003.
2. Patrice Ossona De Mendez, **Sang-il Oum**, and David R. Wood. "Defective coloring of graphs excluding a subgraph or minor". In: *Combinatorica* (2018). Accepted.
3. Jisu Jeong, Eun Jung Kim, and **Sang-il Oum**. "The "art of trellis decoding" is fixed-parameter tractable". In: *IEEE Trans. Inform. Theory* 63.11 (2017), pp. 7178–7205. DOI: 10.1109/TIT.2017.2740283.
4. Ilkyoo Choi, O-joung Kwon, and **Sang-il Oum**. "Coloring graphs without fan vertex-minors and graphs without cycle pivot-minors". In: *J. Combin. Theory Ser. B* 123 (2017), pp. 126–147. DOI: 10.1016/j.jctb.2016.11.007.
5. Suyoung Choi, Miyaki Masuda, and **Sang-il Oum**. "Classification of real Bott manifolds and acyclic digraphs". In: *Trans. Amer. Math. Soc.* 369.4 (2017), pp. 2987–3011. DOI: 10.1090/tran/6896.