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Gergely Ódor

Ph.D. student in Computer Science at EPFL | Email: gergely.odor@epfl.ch | Website: https://www.gergelyodor.com/

Education

Ph.D. in Computer Science, *École polytechnique fédérale de Lausanne*, Lausanne, Switzerland

2017 Sept – present | Thesis topic: The role of adaptivity in source location | Advisor: Prof. Patrick Thiran

M.S. in Mathematics, *Central European University*, Budapest, Hungary

2016 Sept – 2017 May | Thesis: Global information loss and criticality in resistance matrices | Advisor: Prof. Bálint Virág

B.S. in Mathematics with Computer Science, *Massachusetts Institute of Technology*, Cambridge, MA

2012 Sept – 2016 May | Cumulative GPA**:** 4.9 (out of 5.0)

Preprints

- G. Ódor, J. Vuckovic, M.S. Ndoye and P. Thiran
  "Source Detection via Contact Tracing in the Presence of Asymptomatic Patients"
  arXiv preprint arXiv: 2112.14530 (2021)
- S. Mashkaria, G. Ódor, and P. Thiran
  "On the robustness of the metric dimension of grid graphs to adding a single edge"
  arXiv preprint arXiv: 2010.11023 (2020)
- Y. Meirovitch, A. Matveev, H. Saribekyan, D. Budden, D. Rolnick, G. Odor, S. Knowles-Barley, T.R. Jones, H. Pfister, J.W. Lichtman, N. Shavit,
  "A Multi-Pass Approach to Large-Scale Connectomics,"
  arXiv preprint arXiv:1612.02120 (2016)

Peer-reviewed Journal Publications

- V. Lecomte, G. Ódor, and P. Thiran
  "The power of adaptivity in source identification with time queries on the path"
  Theoretical Computer Science, in press (2022)
- G. Ódor, D. Czifra, J. Komjáthy, L. Lovász, and M. Karsai,
  "Switchover phenomenon induced by epidemic seeding on geometric networks"
  Proceedings of the National Academy of Sciences, 118(41); (2021)
- G. Ódor, and P. Thiran,
  "Sequential metric dimension for random graphs"
  Journal of Applied Probability, Volume 58, Issue 4, December pp. 909 – 951; (2021)
- J. Komjáthy, and G. Ódor,
  "Metric dimension of critical Galton–Watson trees and linear preferential attachment trees"
  European Journal of Combinatorics, 95, p.103317; (2021)
- A. Matveev, Y. Meirovitch, H. Saribekyan, W. Jakubiuk, T. Kaler, G. Odor, D. Budden, A. Zlateski, and N. Shavit,
  "A multicore path to connectomics-on-demand"
  Proceedings of the 22nd ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming; (2017) (Best Paper nominee).
- G. [Géza] Ódor, R. Dickman, G. [Gergely] Ódor,
  "Griffiths phases and localization in hierarchical modular networks"
  Sci. Rep. 5, 14451 (Nature Publishing Group); (2015).
- H. Schulz, G. [Géza] Ódor, G. [Gergely] Ódor, M. F. Nagy,

"Simulation of 1+1 dimensional surface growth and lattices gases using GPUs"
Comp. Phys. Comm. 182; (2011)

Peer-reviewed Conference Publications

- G. Odor, Y.-H. Li, A. Yurtsever, Y.-P. Hsieh, Q. Tran-Dinh, M. El Halabi and V. Cevher, "Frank-Wolfe works for non-Lipschitz continuous gradient objectives: scalable Poisson phase retrieval," ICASSP (2016)

Presentations

- **2021 November:** Budapest Semesters in Mathematics Colloquium (Budapest)
  Title: Switchover phenomenon induced by epidemic seeding on geometric networks (invited speaker)
- **2021 July:** Franco-Dutch meeting "Bézout-Eurandom" (IHP Paris)
  Title: Switchover phenomenon induced by epidemic seeding on geometric networks
- **2021 July:** Rátz László Conference of Mathematics Teachers (online)
  Title: Random trees and epidemic spreading (invited speaker)
- **2020 February:** Budapest University of Technology and Economics Stochastic Seminar (TU Budapest)
  Title: Sequential metric dimension for random graphs (invited speaker)
- **2019 July:** 19th International Conference on Random Structures and Algorithms (ETH Zurich)
  Title: Sequential metric dimension for random graphs (contributed talk)
- **2019 March:** YEP XV "Information Diffusion on Random Networks" (TU Eindhoven)
  Title: Source localization with adaptive sensor selection in random graphs (contributed talk)
- **2018 April**: Wiki Workshop at The Web Conference (WWW2018 Lyon)
  Title: How did Wikipedia become navigable (poster)
- **2014, 2015, 2018 December:** Statistical Physics Holiday Seminar, Eotvos Lorand University (ELTE)

Reseach internships

Alfréd Rényi Institute of Mathematics (Hungarian Academy of Science) – Budapest, Hungary
Temporary research position in the group of Prof. Bálint Virág 06.2017 – 08.2017

Computational Connectomics Group, MIT CSAIL – Cambridge, MA
Undergrad Researcher under the direction of Prof. Nir Shavit 09.2014 – 05.2016

Laboratory for Information and Inference Systems, EPFL – Lausanne, Switzerland
Research Intern under the direction of Prof. Volkan Cevher 06.2015 – 08.2015

Bear Lab, MIT – Cambridge, MA
Undergrad Researcher under the direction of Profs Mark Bear and Arnold Heynen 02.2013 – 05.2014

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Teaching activities

Teaching Assistantship:

- Dynamical system theory for engineers (EPFL, 09.2018 – 01.2019, 09.2019 –01.2020)
- Probabilities and statistics (EPFL, 02.2019 – 06.2019)
- Theory of Computation (EPFL, 02.2018 – 06.2018)
- Matrix Computations with Applications (CEU, 02.2017 – 06.2017)

Tutoring:

- Mathematics and English for disadvantaged children (Menetszél Association 02.2020 – 06.2021)
- Introductory mathematics classes for MIT students (MIT Math Learning Center, 09.2014 – 05.2015)
- Advanced computer science classes for MIT students (HKN Tutoring, 02.2015. – 05.2015)

Supervision of students/junior researchers

- Jana Vuckovic (summer@EPFL intern 2021)
- Miguel-Angel Sanchez Ndoye (EPFL Student Assistant Spring 2021, Summer 2021)
- Stanislas Jouven (EPFL BA semester project, Spring 2019, Fall 2019)
- Victor Lecomte (summer@EPFL intern, 2019)
- Satvik Mashkaria (summer@EPFL intern, 2019)
- Nicolas D'Argenlieu (EPFL BA semester project, Spring 2019)
- Constantin Isabela (EPFL MS semester project, Fall 2018)
- Farzad Pourkamali (summer@EPFL intern, 2018)
- Shivani Angappan and Kejia Wang (MIT PRIMES Circle, Spring 2016)

Outreach activities

- Tutored online Hungarian disadvantaged students in 5th and 7th grade in Mathematics and English (Menetszél Association from 2020-2021)
- Tutored at an after-school program for Boston-area public high school students that offers a mathematical enrichment curriculum and an introductory research experience to talented students with disadvantaged backgrounds. (MIT PRIMES Circle tutor in Spring 2016)

Awards

- The paper “A multicore path to connectomics-on-demand” was nominated for Best Paper Award at PPoPP17
- International Mathematical Olympiad, Mar del Plata, 2012 – Honorable Mention
- International Olympiad in Informatics, Hungarian Qualifiers 2012 – 5th place
- W. L. Putnam Math. Comp. 2012, 2013, 2014, and 2015 – Top 12% each year (top 7% in 2013)

Languages

Fluent in English and Hungarian, intermediate in French