

KARTHIK C. S.*

Department of Computer Science, Rutgers University, Piscataway, NJ 08854, USA.

🔗 cskarthikcs.github.io

✉ karthik0112358@gmail.com

RESEARCH INTERESTS

I am broadly interested in **Theoretical Computer Science**. In particular, I have spent the last few years proving **Hardness of Approximation** results for problems in **P** and understanding the Hardness of **Geometric** problems, such as **Clustering**, **Steiner Tree**, **Closest Pair**, and **Fixed Point** Computation.

EDUCATION

- **Ph.D.** in Computer Science September 2014 – June 2019
Weizmann Institute of Science, Rehovot, Israel Advisor: Prof. Irit Dinur
Ph.D. Thesis: New Arenas in Hardness of Approximation
- **M.S.** in Computer Science September 2012 – July 2014
École Normale Supérieure, Lyon, France Advisor: Prof. Hervé Fournier
Master Thesis: Lower bounds for Multilinear Branching Programs

EMPLOYMENT

- **Assistant Professor** September 2021 – ongoing
Rutgers University, New Brunswick, USA
- **Postdoctoral Fellow** September 2020 – August 2021
Host: Prof. Subhash Khot **New York University**, New York, USA
- **Postdoctoral Fellow** September 2019 – August 2020
Host: Prof. Amir Shpilka **Tel Aviv University**, Tel Aviv, Israel
- **Postdoctoral Fellow** July 2019 – September 2019
Host: Prof. Irit Dinur **Weizmann Institute of Science**, Rehovot, Israel

SELECTED ACADEMIC AWARDS AND HONORS

- **National Science Foundation CAREER Award** (\$649,200) 2025–29
Title: CAREER: Price of Clustering in Geometric Spaces: Inapproximability, Conditional Lower Bounds, and More
- **National Science Foundation Grant** (\$252,846) 2024–27
Title: DIMACS Special Focus on Fine-Grained Complexity
- **National Science Foundation Grant** (\$600,000) 2023–26
Title: AF: Small: Hardness of Approximation Meets Parameterized Complexity
- Rutgers Research Council **Individual Fulcrum Award** (\$2,000) 2022–23
- Rutgers University Libraries **Open and Affordable Textbooks Award** (\$1,000) Spring 2023
- **Simons Foundation Junior Faculty Fellow** 2021–24
- **Postdoctoral Matching Scholarship** at Tel Aviv University (\$17,500) 2019
- **LIP** (Laboratoire de l'Informatique du Parallélisme) Fellowship at ENS Lyon (\$12,000) 2013
- **INRIA – ENS Cachan Fellowship** (*regretfully declined*) 2013
- **Labex** (Laboratoires d'excellence) Scholarship at University of Nice-Sophia Antipolis (\$7,000) 2012
- Innovation in Science Pursuit for Inspired Research (**INSPIRE**) Scholarship 2010–12
- **KPMG Scholarship** 2009–12

* In some legal documents, my name appears as “Karthik Cambipuram Srikanta” or “Karthik Srikanta”.

- National Board for Higher Mathematics (**NBHM**) Scholarship 2008
- Kishore Vaigyanik Protsahan Yojana (**KVPY**) fellowship 2007
- Indian National Mathematical Olympiad (**INMO**) Awardee 2007
- National Talent Search Examination (**NTSE**) scholarship 2006

MENTORING

Ph.D. Students at Rutgers:

- Surya Teja Gavva *Graduated March 2023*
Thesis: Computational Aspects of Some Geometric and Analytic Problems
 Surya joined City University of New York as Lecturer after graduation.
- Minhao Bai *2021 – ongoing*
- Adarsh Srinivasan *2022 – ongoing*
- Mursalin Habib *2023 – ongoing*

Master Students at Rutgers:

- Sharath Punna *Graduated April 2023*
Thesis: On Clustering Data with Few Clusters
 Sharath joined Ansys as R&D Engineer after graduation. **Outstanding Project Award**

Undergraduate Students at Rutgers:

- Parth Patel *Summer 2022*
- Kashish Vaibhav *Summer 2022*
- Shakib Rahman *2022 – 2023*
 ★ Received **Novielli Award**
- Keya Patel *2022 – 2023*
- Surya Mantha *2022 – 2023*
- Elijah Rubin *2022 – 2023*
- Enver Aman *2023 – 2024*
 ★ Received **Henry Rutgers Scholar Award**
 ★ Received **Magidson Award**

DIMACS REU Students:

- Henry Fleischmann (University of Michigan) *Summer 2022*
 ★ Received **Honorable Mention for the CRA Outstanding Undergraduate Researcher Award 2023**
- Lakshay Patel (University of California Berkeley) *Summer 2022*
- Styopa Zharkov (Stanford University) *Summer 2023*
 ★ Received **Honorable Mention for the CRA Outstanding Undergraduate Researcher Award 2024**
- Ashwin Padaki (Columbia University) *Summer 2023*
- Jakub Petr (Charles University) *Summer 2023*
- Guillermo Gamboa (Charles University) *Summer 2023, Summer 2024*
- Kyrlo Karlov (Charles University) *Summer 2023*
- Josef Matějka (Charles University) *Summer 2023*
- Patrik Zavoral (Charles University) *Summer 2024*
- Todor Antic (Charles University) *Summer 2024*
- Jelena Glisic (Charles University) *Summer 2024*

Visiting Students:

PROFESSIONAL SERVICE

Workshop/Seminar (Co)-Organizer:

- o DIMACS Workshop on Hardness of Approximation in P 2025
Center for Discrete Mathematics and Theoretical Computer Science
- o DIMACS Tutorial on Fine-grained Complexity 2024
Center for Discrete Mathematics and Theoretical Computer Science
- o Old Questions and New Directions in Theory of Clustering 2024
University of California San Diego EnCORE Workshop
- o Parameterized Approximation: Algorithms and Hardness 2023
Dagstuhl Seminar
- o Theory Seminar 2022–2024
Rutgers and DIMACS

Program Committee Member of Conferences:

- o IEEE International Conference on Data Mining (ICDM) 2024
- o ACM Symposium on Theory of Computing (STOC) 2024
- o ACM-SIAM Symposium on Discrete Algorithms (SODA) 2024
- o IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS) 2023
- o Conference on Uncertainty in Artificial Intelligence (UAI) 2023
- o EATCS International Colloquium on Automata, Languages and Programming (ICALP) 2023
- o International Workshop on Approximation and Online Algorithms (WAOA) 2022
- o Innovations in Theoretical Computer Science Conference (ITCS) 2022
- o Conference on Uncertainty in Artificial Intelligence (UAI) 2022
★ Recognized as **Top Reviewer**
- o Conference on Uncertainty in Artificial Intelligence (UAI) 2021
- o International Symposium on Parameterized and Exact Computation (IPEC) 2021

External Reviewer for Journals:

- o Journal of the ACM
- o SIAM Journal on Computing
- o Journal of Computational Complexity
- o SIAM Journal on Discrete Mathematics
- o Computer Science Review
- o Information Processing Letters
- o IEEE Transactions on Pattern Analysis and Machine Intelligence
- o Games and Economic Behavior
- o ACM Journal of Experimental Algorithmics
- o Algorithmica

External Reviewer for Conferences:

- o ACM Symposium on Theory of Computing (STOC) 2019 – 23, 2025
- o IEEE Symposium on Foundations of Computer Science (FOCS) 2018, 2020 – 21, 2023 – 24
- o ACM-SIAM Symposium on Discrete Algorithms (SODA) 2020 – 23, 2025

- Computational Complexity Conference (CCC) 2019, 2021
- International Conference on Machine Learning (ICML) 2023
- International Symposium on Computational Geometry (SoCG) 2021 – 22
- ACM Symposium on Parallelism in Algorithms and Architectures (SPAA) 2017, 2021
- EATCS International Colloquium on Automata, Languages and Programming (ICALP) 2018 – 22, 2024
- Innovations in Theoretical Computer Science Conference (ITCS) 2020, 2024 – 25
- SIAM Symposium on Simplicity in Algorithms (SOSA) 2024 – 25
- European Symposium on Algorithms (ESA) 2019, 2021 – 23
- International Conference and Workshops on Algorithms and Computation (WALCOM) 2022
- International Symposium on Algorithms and Computation (ISAAC) 2019
- International Conference on Approximation Algorithms for Combinatorial Optimization Problems (APPROX) 2019, 2023
- International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM) 2024
- International Computer Science Symposium in Russia (CSR) 2018
- ACM Symposium on Principles of Distributed Computing (PODC) 2018
- International Conference on Randomization and Computation (RANDOM) 2018
- Symposium on Theoretical Aspects of Computer Science (STACS) 2018, 2025

External Reviewer for Grant Proposals:

- French National Research Agency (ANR)
- Israel Science Foundation (ISF)

Committee Services at Rutgers:

- Faculty Hiring committee 2024
Rutgers University
- PhD Admissions committee 2022 – 25
Rutgers University
- Masters Admissions committee 2025
Rutgers University
- School of Arts and Sciences Honors Program Faculty Mentor 2022 – 24
Rutgers University

RESEARCH VISITS

- **INSAIT, Sofia, Bulgaria** September–November 2024
Host: Prof. Amir Abboud and Prof. Bernhard Haeupler
- **Paris Cité University, Paris, France** April 2024, November 2024
Host: Dr. David Saulpic
- **University of California, San Deigo, USA** February–March 2024
Host: Prof. Barna Saha
- **Indian Institute of Science, Bangalore, India** February – March 2022, December – January 2023
Host: Prof. Rahul Saladi November 2023, April 2024, August 2024, December 2024
- **Indian Institute of Technology Bombay, Mumbai, India** August 2023
Host: Prof. Akash Kumar
- **Weizmann Institute of Science, Israel** August 2022, October 2022, May 2023
Host: Prof. Amir Abboud and Prof. Merav Parter
- **University of Birmingham, UK** June 2023

- Host: Prof. Rajesh Chitnis*
- **Carnegie Mellon University, USA** *May 2022*
Host: Prof. Boris Bukh
 - **Google Research, Mountain View, USA** *November 2019*
Host: Dr. Pasin Manurangsi
 - **Eötvös Loránd University, Budapest, Hungary** *September 2019*
Host: Prof. Dömötör Pálvölgyi
 - **Microsoft Research India** *July – August 2019*
Host: Dr. Prateek Jain
 - **Shanghai University of Finance and Economics, China** *June 2019*
Host: Prof. Bundit Laekhanukit
 - **University of California, Santa Barbara, USA** *May 2019*
Host: Prof. Daniel Lokshtanov
 - **Sorbonne University, Paris, France** *April 2019, December 2019*
Host: Dr. Vincent Cohen-Addad
 - **University of California, Berkeley, USA** *July 2018, August 2018*
Host: Pasin Manurangsi
 - **INRIA Sophia Antipolis, France** *September 2013, June 2014, January 2017*
Host: Prof. Jean-Daniel Boissonnat

INTERNSHIPS

- **Sensitivity Conjecture** *July-August 2015*
Mentor: Dr. Satyanarayana Lokam **Microsoft Research, Bangalore**
- **Content Coordinator** *July-August 2014*
Company: Function Space **Bangalore**
- **A τ conjecture for Newton Polygons** *May-July 2013*
Mentors: Prof. Pascal Koiran and Prof. Stéphan Thomassé **ENS, Lyon**
- **Spectral Clustering for Convex sets** *May-July 2012*
Mentor: Dr. David Cohen-Steiner **INRIA, Sophia Antipolis**
- **Parser for differential-algebraic equations** *May-August 2011*
Mentors: Prof. Kannan Moudgalya and Prof. John Pye **Google Summer of Code**
- **Hash function for dictionary based on lexicographic properties** *May-June 2010*
Mentor: Prof. Deepak Phatak **IIT Bombay, Mumbai**

PUBLICATIONS¹

The publications below are reverse chronologically ordered. As is customary in theoretical computer science research, **all** of the publications are listed in the alphabetical author order.

- **On Steiner Trees of the Regular Simplex**
Henry Fleischmann, Guillermo A. Gamboa Q., Karthik C. S., Josef Matějka, and Jakub Petr.
To appear in *Journal of Computational Geometry (JoCG)*.
- **Inapproximability of Maximum Diameter Clustering for Few Clusters**
Henry Fleischmann, Kyrilo Karlov, Karthik C. S., Ashwin Padaki, and Stepan Zharkov.
In the Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (**SODA**), 2025.
- **Maximum Span Hypothesis: A Weaker Assumption than Gap-ETH for Parameterized Complexity**
Karthik C. S. and Subhash Khot.
In the Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (**SODA**), 2025.

¹In all the publications that I have coauthored, my name appears as “Karthik C. S.”.

- **On Equivalence of Parameterized Inapproximability of k -Median, k -Max-Coverage, and 2-CSP**
Karthik C. S., Euiwoong Lee and Pasin Manurangsi.
 In Proceedings of the International Symposium on Parameterized and Exact Computation (IPEC), 2024.
 Invited to Algorithmica journal Special Issue for IPEC 2024.
- **On connections between k -coloring and Euclidean k -means**
Enver Aman, Karthik C. S., and Sharath Punna.
 In the Proceedings of the European Symposium on Algorithms (ESA), 2024.
- **On Inapproximability of Reconfiguration Problems: PSPACE-Hardness and some Tight NP-Hardness Results**
Karthik C. S. and Pasin Manurangsi.
 Manuscript: <https://eccc.weizmann.ac.il/report/2024/007/>
- **Explicit Good Codes Approaching Distance 1 in Ulam Metric**
Elazar Goldenberg, Mursalin Habib, Karthik C. S.
 In the Proceedings of the International Symposium on Information Theory (ISIT), 2024.
- **On Approximability of Steiner Tree in ℓ_p -metrics**
Henry Fleischmann, Surya Teja Gavva, and Karthik C. S..
 In the Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (SODA), 2024.
 To appear in TheoretCS.
- **Conditional lower bounds for sparse parameterized 2-CSP: A streamlined proof**
Karthik C. S., Daniel Marx, Marcin Pilipczuk, and Uéverton Souza.
 In the Proceedings of the SIAM Symposium on Simplicity in Algorithms (SOSA), 2024.
- **Fairness of Linear Regression in Decision Making**
Vincent Cohen-Addad, Surya Teja Gavva, Karthik C. S., Claire Mathieu, and Namrata.
 In International Journal of Data Science and Analytics, 18(3): 337-347, 2024.
- **Clustering Categorical Data: Soft Rounding k -modes**
Surya Teja Gavva, Karthik C. S., and Sharath Punna.
 In Information and Computation, 296(1): 105–115, 2024.
- **On Complexity of 1-Center in Various Metrics**
Amir Abboud, Mohammadhossein Bateni, Vincent Cohen-Addad, Karthik C. S., and Saeed Seddighin.
 In the Proceedings of the International Conference on Approximation Algorithms for Combinatorial Optimization Problems (APPROX), 2023.
- **Can You Solve Closest String Faster than Exhaustive Search?**
Amir Abboud, Nick Fischer, Elazar Goldenberg, Karthik C. S., and Ron Safier.
 In the Proceedings of the European Symposium on Algorithms (ESA), 2023.
- **Obtaining Approximately Optimal and Diverse Solutions via Dispersion**
Jie Gao, Mayank Goswami, Karthik C. S., Meng-Tsung Tsai, Shih-Yu Tsai, and Hao-Tsung Yang.
 In the Proceedings of the Latin American Theoretical Informatics Symposium (LATIN), 2022.
- **Almost Polynomial Factor Inapproximability for Parameterized k -Clique**
Karthik C. S. and Subhash Khot.
 In the Proceedings of the Computational Complexity Conference (CCC), 2022.
 Invited to Theory of Computing journal Special Issue for CCC 2022.
- **Johnson Coverage Hypothesis: Inapproximability of k -means and k -median in ℓ_p -metrics**
Vincent Cohen-Addad, Karthik C. S., and Euiwoong Lee.
 In the Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (SODA), 2022.
- **Applications of Random Algebraic Constructions to Hardness of Approximation**
Boris Bukh, Karthik C. S., and Bhargav Narayanan.
 In the Proceedings of the Symposium on Foundations of Computer Science (FOCS), 2021.
 To appear in Israel Journal of Mathematics.
- **On Approximability of Clustering Problems Without Candidate Centers**
Vincent Cohen-Addad, Karthik C. S., and Euiwoong Lee.
 In the Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (SODA), 2021.

- **Deterministic Replacement Path Covering**
Karthik C. S. and Merav Parter.
 In the Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (SODA), 2021.
 In *ACM Transactions on Algorithms (TALG)*, 20(4): 34:1–34:35, 2024.
- **On Hardness of Approximation of Parameterized Set Cover and Label Cover: Threshold Graphs from Error Correcting Codes**
Karthik C. S. and Inbal Livni Navon.
 In the Proceedings of the SIAM Symposium on Simplicity in Algorithms (SOSA), 2021.
- **On Communication Complexity of Fixed Point Computation**
Anat Ganor, Karthik C. S., and Dömötör Pálvölgyi.
 In *ACM Transactions on Economics and Computation (TEAC)*, 9(4): 25:1–25:27, 2021.
- **On Efficient Low Distortion Ultrametric Embedding**
Vincent Cohen-Addad, Karthik C. S., and Guillaume Lagarde.
 In the Proceedings of the International Conference on Machine Learning (ICML), 2020.
- **A Survey on Approximation in Parameterized Complexity: Hardness and Algorithms**
Andreas Emil Feldmann, Karthik C. S., Euiwoong Lee, and Pasin Manurangsi.
 In *Algorithms*, 13(6), 146, 2020 (by invitation to special issue titled ‘New Frontiers in Parameterized Complexity and Algorithms’).
- **Hardness Amplification of Optimization Problems**
Elazar Goldenberg and Karthik C. S.
 In the Proceedings of the Innovations in Theoretical Computer Science (ITCS), 2020.
- **Inapproximability of Clustering in ℓ_p -metrics**
Vincent Cohen-Addad and Karthik C. S.
 In the Proceedings of the Symposium on Foundations of Computer Science (FOCS), 2019.
- **On Closest Pair in Euclidean Metric: Monochromatic is as Hard as Bichromatic**
Karthik C. S. and Pasin Manurangsi.
 In the Proceedings of the Innovations in Theoretical Computer Science (ITCS), 2019.
 In *Combinatorica*, 40(4): 539–573, 2020.
- **Parameterized Intractability of Even Set and Shortest Vector Problem**
Arnab Bhattacharyya, Édouard Bonnet, László Egri, Suprovat Ghoshal, Karthik C. S., Bingkai Lin, Pasin Manurangsi, and Dániel Marx.
 In *Journal of the ACM (JACM)*, 68(3): 16:1–16:40, 2021.
 An earlier version by Arnab Bhattacharyya, Suprovat Ghoshal, Karthik C. S., and Pasin Manurangsi, titled *Parameterized Intractability of Even Set and Shortest Vector Problem from Gap-ETH* appeared in Proceedings of International Colloquium on Automata, Languages, and Programming (ICALP), 2018.
- **Towards a General Direct Product Testing Theorem**
Elazar Goldenberg and Karthik C. S.
 In the Proceedings of the IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS), 2018.
 In *ACM Transactions on Computation Theory (TOCT)*, 12(1): 7:1–7:18, 2020.
- **On the Parameterized Complexity of Approximating Dominating Set**
Karthik C. S., Bundit Laekhanukit, and Pasin Manurangsi.
 In the Proceedings of the Symposium on Theory of Computing (STOC), 2018.
 In *Journal of the ACM (JACM)*, 66(5): 33:1–33:38, 2019.
 Invited to SIAM Journal on Computing Special Issue for STOC 2018 (regretfully declined).
 Invited to Highlights of Algorithms (HALG) 2019.
- **On The Complexity of Closest Pair via Polar-Pair of Point-Sets**
Roe David, Karthik C. S., and Bundit Laekhanukit.
 In the Proceedings of the Symposium on Computational Geometry (SoCG), 2018.
 In *SIAM Journal on Discrete Mathematics (SIDMA)*, 33(1): 509–527, 2019.
- **Communication Complexity of Correlated Equilibrium with Small Support**
Anat Ganor and Karthik C. S.

In the Proceedings of the International Conference on Approximation Algorithms for Combinatorial Optimization Problems (**APPROX**), 2018.

- **Ham Sandwich is Equivalent to Borsuk-Ulam**

Karthik C. S. and Arpan Saha.

In the Proceedings of the Symposium on Computational Geometry (**SoCG**), 2017.

- **An Efficient Representation for Filtrations of Simplicial Complexes**

Jean-Daniel Boissonnat and Karthik C. S.

In the Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (**SODA**), 2017.

In *ACM Transactions on Algorithms* (**TALG**), 14(4): 44:1–44:21, 2018.

- **Did the Train Reach its Destination: The Complexity of Finding a Witness**

Karthik C. S.

In *Information Processing Letters* (**IPL**), 121(5): 17–21, 2017.

- **On the Sensitivity Conjecture for Disjunctive Normal Forms**

Karthik C. S. and Sébastien Tavenas.

In the Proceedings of the IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (**FSTTCS**), 2016.

- **Building Efficient and Compact Data Structures for Simplicial Complexes**

Jean-Daniel Boissonnat, Karthik C. S., and Sébastien Tavenas.

In the Proceedings of the Symposium on Computational Geometry (**SoCG**), 2015.

In *Algorithmica*, 79(2): 530–567, 2017.

INVITED TALKS²

- **Inapproximability of k-means and k-median: A Unified Framework**

Frontiers of Geometric Algorithms workshop

December 2024

- **Hardness of Approximation of Diameter Clustering**

Queens College CUNY Computer Science Colloquium

October 2023

Bangalore Theory Seminar

November 2023

- **Hardness of Approximating Steiner Tree in ℓ_p -metrics**

Bangalore Theory Seminar

January 2023

NYU Theory Seminar

March 2023

Weizmann Institute of Science

May 2023

- **Hardness of Approximation for Metric Clustering**

STOC workshop: The Recent Past and Near Future of Clustering (virtual talk)

June 2021

Recent Trends in Algorithms, India (virtual talk)

March 2022

Indian Institute of Technology Bombay Theory Seminar, India

August 2023

- **Recent Hardness of Approximation results in Parameterized Complexity**

Workshop at Hausdorff Center for Mathematics (virtual talk)

December 2021

- **Reversing Color Coding**

University of Michigan and Purdue University Joint Theory Seminar (virtual talk)

September 2021

Rutgers University Theory Seminar (virtual talk)

September 2021

Cornell University Theory Seminar (virtual talk)

September 2021

- **Fairness in Decision Making: Is Linear Regression Fair?**

New York University Scholar Speaker Series (virtual talk)

November 2020

- **Towards a Unified Framework for Hardness of Approximation in P**

TAU Theory Fest, Tel Aviv

January 2020

Frontiers of Parameterized Complexity (virtual talk)

August 2020

Parameterized Complexity Workshop (virtual talk)

December 2020

Combinatorics Seminar, Tel Aviv University (virtual talk)

March 2021

- **Ultrametrics meet Fine-Grained Complexity**

²These do not include talks given at conferences.

Weizmann Institute of Science (virtual talk)	July 2020
Yahoo Research Seminar (virtual talk)	January 2021
<ul style="list-style-type: none"> Clustering: How hard is it to classify data? Google, Mountain View Columbia University Weizmann Institute of Science Hebrew University of Jerusalem 	November 2019 November 2019 December 2019 December 2019
<ul style="list-style-type: none"> Inapproximability of Clustering in ℓ_p-metrics Fine-Grained Approximation Algorithms & Complexity Workshop, Bertinoro Shanghai University of Finance & Economics Tel Aviv University Microsoft Research India Indian Institute of Science Eötvös Loránd University, Budapest 	May 2019 June 2019 June 2019 August 2019 August 2019 September 2019
<ul style="list-style-type: none"> New Arenas in Hardness Amplification Ben-Gurion University Hebrew University of Jerusalem Sorbonne University 	March 2019 April 2019 April 2019
<ul style="list-style-type: none"> On Complexity of Closest Pair Problem Indian Institute of Science FILOFOCS Workshop, Institut Henri Poincaré, Paris Tel Aviv University Technion – Israel Institute of Technology Hebrew University of Jerusalem National Institute of Science Education and Research, Bhubaneswar 	August 2018 October 2018 October 2018 January 2019 April 2019 August 2019
<ul style="list-style-type: none"> A Framework for Parameterized Hardness of Approximation Hebrew University of Jerusalem Tel Aviv University Stanford University Simons Institute for Theory of Computing, Berkeley 	January 2018 March 2018 July 2018 August 2018
<ul style="list-style-type: none"> An Efficient Representation for Filtrations of Simplicial Complexes Topology for Data Analysis Winter School, INRIA Sophia Antipolis 	January 2017
<ul style="list-style-type: none"> Building Efficient and Compact Data Structures for Simplicial Complexes Ben-Gurion University 	December 2015
<ul style="list-style-type: none"> In and Around the Sensitivity Conjecture Microsoft Research, India 	September 2015

TEACHING EXPERIENCE

<ul style="list-style-type: none"> Linear Programming and its Application to Approximation Algorithms (CS 521) Rutgers University 	Instructor Fall 2023
<ul style="list-style-type: none"> Undergraduate Computability and Complexity Theory (CS 452) Rutgers University 	Instructor Fall 2023, Spring 2025
<ul style="list-style-type: none"> Introduction to Discrete Structures I (CS 205) Rutgers University 	Instructor Spring 2023
<ul style="list-style-type: none"> Complexity of Computation (CS 538) Rutgers University 	Instructor Fall 2022
<ul style="list-style-type: none"> Seminar on Interplay of Geometry and Computation (CS 671) Rutgers University 	Instructor Fall 2021
<ul style="list-style-type: none"> A Theorist's Toolkit Weizmann Institute of Science 	Teaching Assistant Spring 2018

- **Computer Programming and Utilization** (CS 101)
Indian Institute of Technology Bombay
Awarded Certificate for **outstanding services** in both semesters

Teaching Assistant
Fall 2011, Spring 2012