

# List of Publications

Dr. Lasse Kliemann

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## Books

1) Lasse Kliemann and Peter Sanders, eds. *Algorithm Engineering: Selected Results and Surveys*. Vol. 9220. Lecture Notes in Computer Science. Springer, 2016. DOI: [10.1007/978-3-319-49487-6](https://doi.org/10.1007/978-3-319-49487-6)

## Peer-Reviewed Journal Articles

2) Axel Wedemeyer, Lasse Kliemann, Anand Srivastav, Christian Schielke, Thorsten Reusch, and Philip Rosenstiel. “An Improved Filtering Algorithm for Big Read Datasets”. In: *BMC Bioinformatics* 18:324 (2017), 11 pages. DOI: [10.1186/s12859-017-1724-7](https://doi.org/10.1186/s12859-017-1724-7)

3) Lasse Kliemann, Elmira Shirazi Sheykhdarabadi, and Anand Srivastav. “Swap Equilibria under Link and Vertex Destruction”. In: *Games* 8.1 (2017), 18 pages. DOI: [10.3390/g8010014](https://doi.org/10.3390/g8010014)

4) Lasse Kliemann, Elmira Shirazi Sheykhdarabadi, and Anand Srivastav. “Price of Anarchy for Graph Coloring Games with Concave Payoff”. In: *AIMS Journal of Dynamics and Games* 4.1 (2017). Conference version at UECE Lisbon Meetings in Game Theory and Applications 2015., pp. 41–58. DOI: [10.3934/jdg.2017003](https://doi.org/10.3934/jdg.2017003)

5) Lasse Kliemann. “The Price of Anarchy in Bilateral Network Formation in an Adversary Model”. In: *Algorithmica* 77.3 (2016). Conference version at SAGT 2013., pp. 1–21. DOI: [10.1007/s00453-016-0120-4](https://doi.org/10.1007/s00453-016-0120-4)

6) Lasse Kliemann. “The Price of Anarchy in Nonatomic Consumption-Relevance Congestion Games”. In: *Networks* 62.2 (2013), pp. 83–94. DOI: [10.1002/net.21499](https://doi.org/10.1002/net.21499)

7) Sebastian Eggert, Lasse Kliemann, Peter Munstermann, and Anand Srivastav. “Bipartite Matching in the Semi-Streaming Model”. In: *Algorithmica* 63.1 (2012). Conference version at ESA 2009., pp. 490–508. DOI: [10.1007/s00453-011-9556-8](https://doi.org/10.1007/s00453-011-9556-8)

8) Lasse Kliemann. “The Price of Anarchy for Network Formation in an Adversary Model”. In: *Games* 2.3 (2011), pp. 302–332. DOI: [10.3390/g2030302](https://doi.org/10.3390/g2030302)

9) Frank-André Siebert, Anand Srivastav, Lasse Kliemann, Helena Fohlin, and György Kovács. “3-dimensional reconstruction of seed implants by randomized rounding and visual evaluation”. In: *Medical Physics* 34.3 (2007), pp. 967–975. DOI: [10.1118/1.2436975](https://doi.org/10.1118/1.2436975)

## Peer-Reviewed Conference Contributions

10) Lasse Kliemann, Christian Schielke, and Anand Srivastav. “A Streaming Algorithm for the Undirected Longest Path Problem”. In: *Proceedings of the 24rd Annual European Symposium on Algorithms, Aarhus, Denmark, August 2016 (ESA 2016)*. Ed. by Piotr Sankowski and Christos Zaroliagis. 2016, 17 pages. DOI: [10.4230/LIPIcs.ESA.2016.56](https://doi.org/10.4230/LIPIcs.ESA.2016.56)

11) Lasse Kliemann. “Price of Anarchy in the Link Destruction (Adversary) Model”. In: *Proceedings of the International Conference on Operations Research, Aachen, Germany, September 2014 (OR 2014)*. Ed. by Marco Lübbecke, Arie Koster, Peter Letmathe, Reinhard Madlener, Britta Peis, and Grit Walther. Invited contribution. 2016, pp. 285–291. DOI: [10.1007/978-3-319-28697-6\\_40](https://doi.org/10.1007/978-3-319-28697-6_40)

12) Lasse Kliemann. “The Price of Anarchy in Bilateral Network Formation in an Adversary Model”. In: *Proceedings of the 6th Annual ACM-SIAM Symposium on Algorithmic Game Theory, Aachen, Germany, October 2013 (SAGT 2013)*. Ed. by Berthold Vöcking. Lecture Notes in Computer Science 8146. 2013, 18 pages. URL: <http://arxiv.org/abs/1308.1832>

13) Lasse Kliemann, Ole Kliemann, C. Patvardhan, Volkmar Sauerland, and Anand Srivastav. “A New QEA Computing Near-Optimal Low-Discrepancy Colorings in the Hypergraph of Arithmetic Progressions”. In: *Proceedings of the 12th International Symposium on Experimental and Efficient Algorithms, Rome, Italy, June 2013 (SEA 2013)*. Ed. by Vincenzo Bonifaci, Camil Demetrescu, and Alberto Marchetti-Spaccamela. Lecture Notes in Computer Science 7933. 2013, pp. 67–78. DOI: [10.1007/978-3-642-38527-8\\_8](https://doi.org/10.1007/978-3-642-38527-8_8)

14) Lasse Kliemann. “Matching in Bipartite Graph Streams in a Small Number of Passes (Extended Abstract)”. In: *Proceedings of the 10th International Symposium on Experimental and Efficient Algorithms, Kolimpari, Chania, Crete, Greece, May 2011 (SEA 2011)*. Ed. by Panos M. Pardalos and Steffen Rebennack. Lecture Notes in Computer Science 6630. 2011, pp. 254–266. DOI: [10.1007/978-3-642-20662-7\\_22](https://doi.org/10.1007/978-3-642-20662-7_22)

15) Lasse Kliemann. “Brief Announcement: The Price of Anarchy for Distributed Network Formation in an Adversary Model”. In: *Proceedings of the 29th Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing, Zurich, Switzerland, July 2010 (PODC 2010)*. 2010, pp. 229–230. DOI: [10.1145/1835698.1835749](https://doi.org/10.1145/1835698.1835749)

- 16) Sebastian Eggert, Lasse Kliemann, and Anand Srivastav. “Bipartite Graph Matchings in the Semi-Streaming Model”. In: *Proceedings of the 17th Annual European Symposium on Algorithms, Copenhagen, Denmark, September 2009 (ESA 2009)*. Ed. by Amos Fiat and Peter Sanders. Lecture Notes in Computer Science 5757. Presented also at the *MADALGO Workshop on Massive Data Algorithmics*, June 2009, Århus, Denmark. 2009, pp. 492–503. DOI: [10.1007/978-3-642-04128-0\\_44](https://doi.org/10.1007/978-3-642-04128-0_44)
- 17) Lasse Kliemann and Anand Srivastav. “Experimental Study of Non-Oblivious Greedy and Randomized Rounding Algorithms for Hypergraph  $b$ -Matching”. In: *Proceedings of the 8th International Symposium on Experimental and Efficient Algorithms, Dortmund, Germany, June 2009 (SEA 2009)*. Ed. by Jan Vahrenhold. Lecture Notes in Computer Science 5526. 2009, pp. 185–196. DOI: [10.1007/978-3-642-02011-7\\_18](https://doi.org/10.1007/978-3-642-02011-7_18)
- 18) Helena Fohlin, Lasse Kliemann, and Anand Srivastav. “Randomized Algorithms for Mixed Matching and Covering in Hypergraphs in 3D Seed Reconstruction in Brachytherapy”. In: *Optimization in Medicine*. Ed. by Carlos J.S. Alves, Panos M. Pardalos, and Luis N. Vicente. Vol. 12. Springer Optimization and Its Applications. 2008, pp. 71–102. DOI: [10.1007/978-0-387-73299-2\\_4](https://doi.org/10.1007/978-0-387-73299-2_4)
- 19) Andreas Baltz, Sandro Esquivel, Lasse Kliemann, and Anand Srivastav. “The Price of Anarchy in Selfish Multicast Routing”. In: *Revised Papers of the 3rd Workshop on Combinatorial and Algorithmic Aspects of Networking, Chester, UK, June 2006 (CAAN 2006)*. Ed. by Thomas Erlebach. Lecture Notes in Computer Science 4235. 2006, pp. 5–18. DOI: [10.1007/11922377\\_2](https://doi.org/10.1007/11922377_2)

## Peer-Reviewed Book Chapters

- 20) Lasse Kliemann. “Engineering a Bipartite Matching Algorithm in the Semi-Streaming Model”. In: *Algorithm Engineering: Selected Results and Surveys*. Ed. by Lasse Kliemann and Peter Sanders. Lecture Notes in Computer Science 9220. 2016, pp. 352–378. DOI: [10.1007/978-3-319-49487-6\\_11](https://doi.org/10.1007/978-3-319-49487-6_11)
- 21) Lasse Kliemann. “Practical Algorithms for Low-Discrepancy 2-Colorings”. In: *A Panorama of Discrepancy Theory*. Ed. by William W. L. Chen, Anand Srivastav, and Giancarlo Travaglini. Lecture Notes in Mathematics 2107. 2014, pp. 459–484. DOI: [10.1007/978-3-319-04696-9\\_7](https://doi.org/10.1007/978-3-319-04696-9_7)
- 22) Lasse Kliemann and Anand Srivastav. “Models of Non-atomic Congestion Games – From Unicast to Multicast Routing”. In: *Algorithmics of Large and Complex Networks*. Ed. by Jürgen Lerner, Dorothea Wagner, and Katharina Zweig. Lecture Notes in Computer Science 5515. 2009, pp. 292–318. DOI: [10.1007/978-3-642-02094-0\\_14](https://doi.org/10.1007/978-3-642-02094-0_14)
- 23) Lasse Kliemann and Anand Srivastav. “Parallel Algorithms via the Probabilistic Method”. In: *Parallel Computing: Models, Algorithms, and Applications*. Ed. by Sanguthevar Rajasekaran and John H. Reif. Chapman & Hall/CRC, 2008. Chap. 18, 61 pages. DOI: [10.1201/9781420011296.ch18](https://doi.org/10.1201/9781420011296.ch18)
- 24) Andreas Baltz and Lasse Kliemann. “Spectral Analysis”. In: *Network Analysis*. Ed. by Thomas Erlebach and Ulrik Brandes. Lecture Notes in Computer Science 3418. 2004, pp. 373–416. DOI: [10.1007/978-3-540-31955-9\\_14](https://doi.org/10.1007/978-3-540-31955-9_14)

## Theses

- 25) Lasse Kliemann. “Networks and Distributed Operation: The Price of Anarchy in Non-Atomic Routing and Network Formation”. PhD thesis. Faculty of Engineering, Kiel University, 2010. URL: [http://macau.uni-kiel.de/receive/dissertation\\_diss\\_00005523](http://macau.uni-kiel.de/receive/dissertation_diss_00005523)
- 26) Lasse Kliemann. “Einige Anwendungen eines heuristischen Prinzips in der Funktionentheorie”. German. Diplomarbeit. Mathematisches Seminar, Christian-Albrechts-Universität zu Kiel, 2003

## Preprints

- 27) Lasse Kliemann, Jan Schiemann, and Anand Srivastav. *Finding Euler Tours in the StrSort Model*. 2016. URL: <https://arxiv.org/abs/1610.03412>