

Publications of Jérémy Barbay by type

Type A

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2. Jérémy Barbay, Meng He, Ian Munro, Srinivasa Rao Satti. Succinct Indexes for Strings, Binary Relations and Multilabeled Trees. *ACM Transactions on Algorithms* 7(4):article 52, 2011. ACM Press, New York, NY, USA. ISSN 1549-6325.
3. Jérémy Barbay, Johannes Fischer, Gonzalo Navarro. LRM-Trees: Compressed Indices, Adaptive Sorting, and Compressed Permutations. *Theoretical Computer Science (TCS)* 459:26-41, 2012. Elsevier Science, Amsterdam, The Netherlands. ISSN 0304-3975.
4. Jérémy Barbay, Francisco Claude, Gonzalo Navarro. Compact Binary Relation Representations with Rich Functionality. *Information and Computation* 232:19-37, 2013. Elsevier Science, Amsterdam, The Netherlands. ISSN 0890-5401.
5. Jérémy Barbay, Gonzalo Navarro. On Compressing Permutations and Adaptive Sorting. *Theoretical Computer Science (TCS)* 513:109-123, 2013. Elsevier Science, Amsterdam, The Netherlands. ISSN 0304-3975.
6. Jérémy Barbay, Francisco Claude, Travis Gagie, Gonzalo Navarro, Yakov Nekrich. Efficient Fully-Compressed Sequence Representations. *Algorithmica* 69(1):232-268, 2014. Springer, New York, NY, USA. ISSN 0178-4617.
7. Jérémy Barbay, Timothy Chan, Pablo Pérez-Lantero, Gonzalo Navarro. Maximum-Weight Planar Boxes in $O(n^2)$ Time (and Better). *Information Processing Letters* 114(8):437-445, 2014. Elsevier Science, Amsterdam, The Netherlands. ISSN 0020-0190.
8. Peyman Afshani, Jérémy Barbay, Timothy Chan. Instance-Optimal Geometric Algorithms. *Journal of the ACM (JACM)* 64(1):3:1-3:38, Mar 2017. ACM Press, New York, NY, USA. ISSN 0004-5411.
9. Jérémy Barbay, Pablo Pérez-Lantero. Adaptive Computation of the Swap-Insert Correction Distance. *ACM Transactions on Algorithms* 14(4):article 49, 2018. ACM Press, New York, NY, USA. ISSN 1549-6325.
10. Jérémy Barbay, Pablo Pérez-Lantero, Javiel Rojas-Ledesma. Computing Coverage Kernels under Restricted Settings. *Theoretical Computer Science (TCS)* 815:270-288, 2020. Elsevier Science, Amsterdam, The Netherlands. ISSN 0304-3975.
11. Jérémy Barbay, Pablo Pérez-Lantero, Javiel Rojas-Ledesma. Computing the Depth Distribution of a Set of Boxes. *Theoretical Computer Science (TCS)* 883:69-82, Jun 2021. Elsevier Science, Amsterdam, The Netherlands. ISSN 0304-3975.

Type B

1. J  r  my Barbay, Alejandro L  pez-Ortiz, Tyler Lu, Salinger Alejandro. An Experimental Investigation of Set Intersection Algorithms for Text Searching. *ACM Journal of Experimental Algorithmics (JEA)* 14:article 3.7, Aug 2009. ACM Press, New York, NY, USA. ISSN 1084-6654.
2. J  r  my Barbay. Optimal Prefix Free Codes with Partial Sorting. *Algorithms* 13(1):article 12, Jan 2020. Molecular Diversity Preservation International, Basel, Switzerland. ISSN 1999-4893.

Type H

1. J  r  my Barbay. Randomized Complexity. In *Concepts of Combinatorial Optimization*, pp. 21-38, 2010. John Wiley & Sons, Hoboken, NJ, USA. ISBN 978-1-84821-147-6. Chapter 2.
2. J  r  my Barbay. Fast Algorithms That Yield Small and Fast Data Structures. In *Conference on Space Efficient Data Structures, Streams and Algorithms, in Honor of Ian Munro’s 66th Birthday*, pp. 97-111, 2013. Springer, New York, NY, USA. ISBN 978-3-642-40272-2. Lecture Notes in Computer Science vol. 8066.
3. J  r  my Barbay. From Adaptive Analysis to Instance Optimality. In *Beyond the Worst-Case Analysis of Algorithms*, pp. 52-71, 2021. Cambridge University Press, Cambridge, UK. Chapter 3.

Type L0

1. J  r  my Barbay, Gonzalo Navarro. Compressed Representations of Permutations, and Applications. In Susanne Albers, Jean-Yves Marion (ed.), *Proc. 26th International Symposium on Theoretical Aspects of Computer Science (STACS)*, pp. 111-122, Feb 2009. Freiburg, Germany. IBFI Schloss Dagstuhl, Wadern, Germany. Dagstuhl Seminar Proceedings vol. 09001. ISBN 978-3-939897-09-5.
2. Peyman Afshani, J  r  my Barbay, Timothy Chan. Instance-Optimal Geometric Algorithms. In *Proc. 50th IEEE Symposium on Foundations of Computer Science (FOCS)*, pp. 129-138, Oct 2009. Atlanta, GA, USA. IEEE Computer Society Press, Los Alamitos, CA, USA.

Type L1

1. J  r  my Barbay, Travis Gagie, Gonzalo Navarro, Yakov Nekrich. Alphabet Partitioning for Compressed Rank/Select and Applications. In O. Cheong, K.-Y. Chwa, and K. Park (ed.), *Proc. 21st Annual International Symposium on Algorithms and Computation (ISAAC)*, pp. 315-326, Dec 2010. Jeju, South Korea. Springer-Verlag, Berlin/Heidelberg, Germany. Lecture Notes in Computer Science vol. 6507 (part II).
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 5. J  r  my Barbay. Optimal Prefix Free Codes with Partial Sorting. In Roberto Grossi, Moshe Lewenstein (ed.), *Proc. Annual Symposium on Combinatorial Pattern Matching (CPM)*, pp. 29:1-29:13, Jun 2016. Tel Aviv, Israel. IBFI Schloss Dagstuhl, Wadern, Germany. Leibniz International Proceedings in Informatics (LIPIcs) vol. 54. ISBN 978-3-95977-012-5.
 6. J  r  my Barbay, Srinivasa Rao Satti, Carlos Ochoa. Synergistic Solutions on MultiSets. In *Proc. 28th Annual Symposium on Combinatorial Pattern Matching (CPM)*, pp. article 31, Jul 2017. Warsaw, Poland. IBFI Schloss Dagstuhl, Wadern, Germany. Leibniz International Proceedings in Informatics (LIPIcs) vol. 78.
 7. J  r  my Barbay, Pablo P  rez-Lantero, Javiel Rojas-Ledesma. Depth Distribution in High Dimensions. In *Proc. International Computing and Combinatorics Conference (COCOON)*, pp. 38-49, Aug 2017. Hong Kong. Springer, New York, NY, USA. LNCS.
 8. J  r  my Barbay, Carlos Ochoa. Synergistic Solutions for Merging and Computing Planar Convex Hulls. In *Proc. 24th International Computing and Combinatorics Conference (COCOON)*, pp. 156-167, Jul 2018. Qingdao, China. Springer, New York, NY, USA. LNCS.
 9. J  r  my Barbay, Pablo P  rez-Lantero, Javiel Rojas-Ledesma. Computing Coverage Kernels Under Restricted Settings. In *Proc. 24th International Computing and Combinatorics Conference (COCOON)*, pp. 180-191, Jul 2018. Qingdao, China. Springer, New York, NY, USA. LNCS.
 10. J  r  my Barbay, Andres Olivares. Indexed Dynamic Programming to boost Edit Distance and LCSS Computation. In *Proc. 25th International Symposium on String Processing and Information Retrieval (SPIRE)*, pp. 61-73, Oct 2018. Lima, Peru. Springer-Verlag, Berlin/Heidelberg, Germany. Lecture Notes in Computer Science vol. 11147. ISBN 978-3-030-00478-1.
 11. J  r  my Barbay. Adaptive Computation of the Discrete Fr  chet Distance. In *Proc. 25th International Symposium on String Processing and Information Retrieval (SPIRE)*, pp. 50-60, Oct 2018. Lima, Peru. Springer-Verlag, Berlin/Heidelberg, Germany. Lecture Notes in Computer Science vol. 11147. ISBN 978-3-030-00478-1.

Type L2

1. J  r  my Barbay, Francisco Claude, Gonzalo Navarro. Compact Rich-Functional Binary Relation Representations. In Alex L  pez-Ortiz (ed.), *Proc. 9th International Symposium of Latin American Theoretical Informatics (LATIN)*, pp. 170-183, Apr 2010. Oaxaca, Mexico. Springer-Verlag, Berlin/Heidelberg, Germany. Lecture Notes in Computer Science vol. 6034.
2. J  r  my Barbay, Gonzalo Navarro, Pablo P  rez-Lantero. Adaptive Techniques to find Optimal Planar Boxes. In *Proc. 24th Canadian Conference on Computational Geometry (CCCG)*, pp. 79-84, Aug 2012. Charlottetown, Prince Edward Island, Canada.
3. J  r  my Barbay, Timothy Chan, Gonzalo Navarro, Pablo P  rez-Lantero. Maximum-Weight Planar Boxes in $O(n^2)$ Time (and Better). In *Proc. 25th Canadian Conference on Computational Geometry (CCCG)*, pp. 151-156, Aug 2013. Waterloo, Ontario, Canada.
4. J  r  my Barbay, Ankur Gupta, Jonathan Sorenson, Srinivasa Rao Satti. Dynamic Online Multiselection in Internal and External Memory. In M. Sohel Rahman and Etsuji Tomita (ed.), *Proc. 9th International Workshop on Algorithms and Computation (WALCOM)*, pp. 199-209, 2015. Springer, New York, NY, USA. Lecture Notes in Computer Science vol. 8973.
5. J  r  my Barbay. Selenite Towers Move Faster Than Hanoi Towers, But Still Require Exponential Time. In Erik D. Demaine and Fabrizio Grandoni (ed.), *Proc. 8th International Conference on Fun with Algorithms (FUN)*, pp. 5:1-5:20, Jun 2016. La Maddalena, Maddalena Islands, Italy. IBFI Schloss Dagstuhl, Wadern, Germany. Leibniz International Proceedings in Informatics (LIPIcs) vol. 49. ISBN 978-3-95977-005-7.
6. J  r  my Barbay, Jocelyn Simmonds, Adriana Nishida, Monael Ribeiro. "Teaching is Learning": Pedagogical Material Created and Evaluated by Students. In *Proc. 46th Frontiers in Education (FIE)*, Oct 2016. Erie, Pennsylvania. IEEE Education Society, Los Alamitos, CA, USA.
7. J  r  my Barbay, Bernardo Subercaseaux. The Computational Complexity of Evil Hangman. In *Proc. 10th International Conference on Fun with Algorithms (FUN)*, pp. 23:1-23:12, 2021. IBFI Schloss Dagstuhl, Wadern, Germany. Leibniz International Proceedings in Informatics (LIPIcs) vol. 157. ISBN 978-3-95977-145-0.
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Type O

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