

Publications of J  r  my Barbay by year

Year 2009

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. 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.
3. 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.

Year 2010

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. 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.
3. 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).
4. J  r  my Barbay, Carlos Bedregal, Gonzalo Navarro. Improving Text Indexes Using Compressed Permutations. In *Proc. XXII Jornadas Chilenas de Computaci  n (JCC)*, Nov 2010. Antofagasta, Chile.
5. J  r  my Barbay, Luca Castelli-Alvardi, Meng He, Ian J. Munro. Succinct Representation of Labeled Graphs. *Algorithmica* 453:1-34, 2010. Springer, New York, NY, USA. ISSN 0178-4617.

Year 2011

1. J  r  my Barbay, Johannes Fischer, Gonzalo Navarro. LRM-Trees: Compressed Indices, Adaptive Sorting, and Compressed Permutations. In Raffaele Giancarlo, Giovanni Manzini (ed.), *Proc. 22nd Annual Symposium on Combinatorial Pattern Matching (CPM)*, pp. 285-298, Jun 2011. Palermo, Italy. Springer-Verlag, Berlin/Heidelberg, Germany. Lecture Notes in Computer Science vol. 6661.
2. J  r  my 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.

Year 2012

1. 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.
2. J  r  my 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.
3. Srinivasa Rao Satti, J  r  my Barbay, Ankur Gupta, Jonathan Sorensen. Near-Optimal Online Multiselection in Internal and External Memory. In *Proc. Workshop Massive Data Algorithmics (MASSIVE)*, pp. 102-112, Sep 2012. Ljubljana, Slovenia.

Year 2013

1. 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.
2. J  r  my Barbay, Srinivasa Rao Satti, Ankur Gupta, Jonathan Sorenson. Theory and Implementation Of Online MultiSelection Algorithms. In H.L. Bodlaender and G.F. Italiano (ed.), *Proc. 20th Annual European Symposium on Algorithms (ESA)*, pp. 109-120, Sep 2013. Sophia Antipolis, France. Springer-Verlag, Berlin/Heidelberg, Germany. Lecture Notes in Computer Science vol. 8125.
3. 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.
4. J  r  my 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.

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Year 2014

1. J      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.
2. J      Barbay, Timothy Chan, Pablo P     -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.

Year 2015

1. J      Barbay, Pablo P     -Lantero. Adaptive Computation of the Swap-Insert Correction Distance. In C. Iliopoulos, S. Puglisi, E. Yilmaz (ed.), *Proc. 22nd International Symposium on String Processing and Information Retrieval (SPIRE)*, pp. 21-32, Sep 2015. London, UK. Springer-Verlag, Berlin/Heidelberg, Germany. Lecture Notes in Computer Science vol. 9309.
2. J      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.

Year 2016

1. J      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.
2. J      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.
3. J      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.

Year 2017

1. 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.
2. Jérémy 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.
3. Jérémy Barbay, Pablo Pérez-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.

Year 2018

1. Jérémy 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.
2. Jérémy Barbay, Pablo Pérez-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.
3. Jérémy 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.
4. Jérémy Barbay. Adaptive Computation of the Discrete Fréchet 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.
5. 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.

Year 2020

1. Jérémy Barbay. Optimal Prefix Free Codes with Partial Sorting. *Algorithms* 13(1):article 12, Jan 2020. Molecular Diversity Preservation International, Basel, Switzerland. ISSN 1999-4893.

