

IVAN RAPAPORT - CV

EDUCATION

Ph.D. in Computer Science. École Normale Supérieure de Lyon, France (1998).

Engineer. Major in Mathematics. Universidad de Chile (1995).

RESEARCH

Minimal proper interval completions I. Rapaport, K. Suchan and I. Todinca, submitted.

The complexity of approximating the oriented diameter of chordal graphs F. Fomin, M. Matamala and I. Rapaport. Proceedings of the 28th International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2002), Lecture Notes in Computer Science 2573 (2002), 211-222, June 13-15, 2002, Cesky Krumlov, Czech Republic. Journal of Graph Theory 45(4), 2004, 255-269.

AT-free graphs: linear bounds for the oriented diameter F. Fomin, M. Matamala, E. Prisner and I. Rapaport. Brazilian Symposium on Graphs, Algorithms and Combinatorics (GRACO 2001), March 17-19, 2001, Fortaleza, Brazil. Discrete Applied Mathematics 141 (2004), 135-148.

Cellular automata and communication complexity C. Durr, I. Rapaport and G. Theyssier. Theoretical Computer Science 322/2 (2004), 355-368.

Domino tilings and other physical models: space of configurations of domains with holes S. Desreux, M. Matamala, I. Rapaport and E. Rémila. Theoretical Computer Science 319 (2004), 83-101.

Tiling with bars under tomographic constraints C. Durr, E. Goles, I. Rapaport and E. Rémila. Theoretical Computer Science 290 (2003), 1317-1329.

Who wins Domineering on rectangular boards? M. Lachmann, C. Moore and I. Rapaport. In *More Games of No Chance*. MSRI Publications 42 (2002), 307-315, Cambridge University Press. 2nd MSRI Combinatorial Games Theory Workshop, July 24-28, 2000, Berkeley, California, USA.

k-Pseudosnakes in large grids M. Matamala, E. Prisner and I. Rapaport. Proceedings of the 5th Latin American Theoretical Informatics Symposium (LATIN 2002), Lecture Notes in Computer Science 2286 (2002), 224-235, April 2-6, 2002, Cancún, Mexico.

Tiling groups for Wang tiles C. Moore, I. Rapaport and E. Rémila. Proceedings of the 13th ACM-SIAM Symposium on Discrete Algorithms (SODA 2002), 402-411, January 6-8, 2002, San Francisco, California, USA.

Global fixed point attractors of circular cellular automata and periodic tilings of the plane: undecidability results J. Mazoyer and I. Rapaport. Discrete Mathematics 199 (1999), 103-122. Editor's Choice Edition 1999.

Tiling allowing rotations only E. Goles and I. Rapaport. Theoretical Computer Science 218 (1999), 285-295.

Inducing an order on cellular automata by a grouping operation J. Mazoyer and I. Rapaport. Proceedings of the 15th Symposium on Theoretical Aspects of Computer Science (STACS 1998), Lecture Notes in Computer Science 1373 (1998), 116-127, February 25-27, 1998, Paris, France. Discrete Applied Mathematics 91 (1999), 177-196.

Additive cellular automata over Z_p and the bottom of $(CA, <)$ J. Mazoyer and I. Rapaport. Proceedings of the 23rd Symposium on Mathematical Foundations of Computer Science (MFCS 1998), Lecture Notes in Computer Science 1450 (1998), 834-843, August 24-28, 1998, Brno, Czech Republic.

Complexity of tile rotation problems E. Goles and I. Rapaport. Theoretical Computer Science 188 (1997), 129-159.

Predicting the behaviour of proteins in hydrophobic interaction chromatography 2: Using a statistical description of their surface amino acid distribution. C. Salgado, I. Rapaport and J. Asenjo. Journal of Chromatography A, 1107, (2006), 120-129.

Predicting the behaviour of proteins in hydrophobic interaction chromatography 1: Using the hydrophobic imbalance (HI) to describe their surface amino acid distribution. C. Salgado, I. Rapaport and J. Asenjo. Journal of Chromatography A, 1107, (2006), 110-119.

Prediction of retention times of proteins in hydrophobic interaction chromatography using only their amino acid composition C. Salgado, I. Rapaport and J. Asenjo. Journal of Chromatography A, 1098 (2005), 44-154.

Is it possible to predict the average surface hydrophobicity of a protein using only its amino acid composition? C. Salgado, I. Rapaport and J. Asenjo. Journal of Chromatography A, 1075 (2005), 133-143.

TEACHING

Combinatorial optimization (Fall 2004)

Probability (Spring 2005, Spring 2003, Spring 2002)

Introduction to algebra (Fall 2005, 2003, 2002, 2001, 2000, 1999)

Linear algebra (Spring 2004, 2001, 2000, 1999)

Calculability and computational complexity (Fall 2006, 2003, 2001)

Communication complexity (Fall 2005, Spring 2000)

Calculus of several variables (Fall 1999)