

# Publications

## PhD Thesis / Thèse

1. L. Szathmary. *Symbolic Data Mining Methods with the Coron Platform*. PhD Thesis in Computer Science, University Henri Poincaré – Nancy 1, France, Nov 2006

## International Journals /

### Revue internationale avec comités de sélection et actes

1. L. Szathmary, P. Valtchev, A. Napoli, R. Godin, A. Boc, and V. Makarenkov. A fast compound algorithm for mining generators, closed itemsets, and computing links between equivalence classes. *Ann. Math. Artif. Intell. (AMAI)*, 70(1–2):81–105, 2014
2. L. Szathmary, P. Valtchev, and A. Napoli. Generating Rare Association Rules Using the Minimal Rare Itemsets Family. *International Journal of Software and Informatics*, 4(3):219–238, September 2010

## International Conferences /

### Conférences internationales avec comités de sélection et actes

1. L. Szathmary, P. Valtchev, A. Napoli, and R. Godin. Efficient Vertical Mining of Minimal Rare Itemsets. In *Proc. of the 9th Intl. Conf. on Concept Lattices and Their Applications (CLA '12)*, pages 269–280, Fuengirola, Malaga, Spain, 2012
2. L. Szathmary, P. Valtchev, A. Napoli, R. Godin, A. Boc, and V. Makarenkov. Fast Mining of Iceberg Lattices: A Modular Approach Using Generators. In *Proc. of the 8th Intl. Conf. on Concept Lattices and Their Applications (CLA '11)*, pages 191–206, Nancy, France, 2011
3. H. Mili, P. Valtchev, Y. Charif, L. Szathmary, N. Daghrir, M. Béland, A. Boubaker, L. Martin, F. Bédard, S. Caid-Essebsi, and A. Leshob. E-Tourism Portal: A Case Study in Ontology-Driven Development. In *E-Technologies: Transformation in a Connected World*, volume 78 of *LNBIP*, pages 76–99. Springer, 2011
4. L. Szathmary, P. Valtchev, and A. Napoli. Finding Minimal Rare Itemsets and Rare Association Rules. In Y. Bi and M.-A. Williams, editors, *Proc. of the 4th Intl. Conf. on Knowledge Science, Engineering and Management (KSEM '10)*, volume 6291 of *LNAI*, pages 16–27, Belfast, Northern Ireland, UK, 2010. Springer, Berlin
5. M. Kaytoue, F. Marcuola, A. Napoli, L. Szathmary, and J. Villerd. The Coron System. In L. Boumedjout, P. Valtchev, L. Kwuida, and B. Sertkaya, editors, *Suppl. Proc. of the 8th Intl. Conf. on Formal Concept Analysis (ICFCA '10)*, pages 55–58, 2010. (demo paper)
6. L. Szathmary, P. Valtchev, A. Napoli, and R. Godin. Efficient Vertical Mining of Frequent Closures and Generators. In *Proc. of the 8th Intl. Symposium on Intelligent Data Analysis (IDA '09)*, volume 5772 of *LNCS*, pages 393–404, Lyon, France, 2009. Springer
7. J. Baixeries, L. Szathmary, P. Valtchev, and R. Godin. Yet a Faster Algorithm for Building the Hasse Diagram of a Galois Lattice. In *Proc. of the 7th Intl. Conf. on Formal Concept Analysis (ICFCA '09)*, volume 5548 of *LNAI*, pages 162–177, Darmstadt, Germany, May 2009. Springer
8. L. Szathmary, P. Valtchev, A. Napoli, and R. Godin. An Efficient Hybrid Algorithm for Mining Frequent Closures and Generators. In *Proc. of the 6th Intl. Conf. on Concept Lattices and Their Applications (CLA '08)*, pages 47–58, Olomouc, Czech Republic, Oct 2008
9. L. Szathmary, P. Valtchev, A. Napoli, and R. Godin. Constructing Iceberg Lattices from Frequent Closures Using Generators. In *Proc. of the 11th Intl. Conf. on Discovery Science (DS '08)*, volume 5255 of *LNAI*, pages 136–147, Budapest, Hungary, Oct 2008. Springer

10. J. Lieber, A. Napoli, L. Szathmary, and Y. Toussaint. First Elements on Knowledge Discovery Guided by Domain Knowledge (KDDK). In S. B. Yahia, E. M. Nguifo, and R. Belohlavek, editors, *Concept Lattices and Their Applications (CLA 06)*, Lecture Notes in Artificial Intelligence 4923, pages 22–41. Springer, Berlin, 2008
11. L. Szathmary, A. Napoli, and P. Valtchev. Towards Rare Itemset Mining. In *Proc. of the 19th IEEE Intl. Conf. on Tools with Artificial Intelligence (ICTAI '07)*, volume 1, pages 305–312, Patras, Greece, Oct 2007
12. L. Szathmary, A. Napoli, and S. O. Kuznetsov. ZART: A Multifunctional Itemset Mining Algorithm. In *Proc. of the 5th Intl. Conf. on Concept Lattices and Their Applications (CLA '07)*, pages 26–37, Montpellier, France, Oct 2007
13. M. d'Aquin, F. Badra, S. Lafrogne, J. Lieber, A. Napoli, and L. Szathmary. Case Base Mining for Adaptation Knowledge Acquisition. In *Proc. of the 20th Intl. Joint Conf. on Artificial Intelligence (IJCAI '07)*, pages 750–755, Hyderabad, India, Jan 2007. Morgan Kaufmann, Inc
14. M. d'Aquin, F. Badra, S. Lafrogne, J. Lieber, A. Napoli, and L. Szathmary. Adaptation Knowledge Discovery from a Case Base. In G. Brewka, editor, *Proc. of the 17th European Conf. on Artificial Intelligence (ECAI '06)*, Trento, Italy, pages 795–796. IOS Press, 2006. (poster paper)
15. L. Szathmary and A. Napoli. CORON: A Framework for Levelwise Itemset Mining Algorithms. In B. Ganter, R. Godin, and E. Mephu Nguifo, editors, *Suppl. Proc. of the Third Intl. Conf. on Formal Concept Analysis (ICFCA '05)*, Lens, France, pages 110–113, Feb 2005. (demo paper)
16. L. Szathmary and A. Napoli. Knowledge organisation and information retrieval based on Galois lattices. In Pham Dinh Tao Le Thi Hoai An, editor, *Modelling, Computation and Optimization in Information Systems and Management Sciences (MCO '04)*, Metz, France, pages 611–618. Hermes Science Publishing, Jul 2004
17. L. Szathmary and A. Napoli. Knowledge organisation and information retrieval with Galois lattices. In E. Motta, N. Shadbolt, A. Stutt, and N. Gibbins, editors, *14th Intl. Conf. on Engineering Knowledge in the Age of the Semantic Web (EKAW '04)*, Whittlebury Hall, UK, volume 3257 of *Lecture Notes in Computer Science*, pages 511–512. Springer, Oct 2004. (poster paper)
18. L. Szathmary and A. Napoli. Towards knowledge management using Galois lattices. In *Proc. of the 6th Intl. Conf. on Applied Informatics (ICAI '04)*, Eger, Hungary, pages 403–417, 2004

### **National (French) Journal / Revue nationale (francophone)**

1. L. Szathmary and A. Napoli. Les treillis de Galois pour l'organisation et la gestion des connaissances. In M. Chavent, M. et Langlais, editor, *11èmes Rencontres de la Société Francophone de Classification (SFC '04)*, Bordeaux, France, volume C of *Revue des Nouvelles Technologies de l'Information (RNTI)*, pages 153–164. CEPAD, Sep 2004. (long version)

### **National (French) Conferences / Conférences francophones avec comités de sélection et actes**

1. M. Kaytoue, A. Napoli, and L. Szathmary. Une brève présentation du système de fouille de données Coron. In *Extraction et gestion des connaissances (EGC '12)*, pages 603–606, Bordeaux, France, 2012. (in French)
2. B. Ducatel, M. Kaytoue, F. Marcuola, A. Napoli, and L. Szathmary. Coron : Plate-forme d'Extraction de Connaissances dans les Bases de Données. In *17ème conférence en Reconnaissance des Formes et Intelligence Artificielle (RFIA '10)*, pages 883–884, 2010. (demo paper, in French)
3. S. Maumus, A. Napoli, L. Szathmary, and Y. Toussaint. Réflexions sur l'extraction de motifs rares. In M. Nadif and F.-X. Jollois, editors, *Comptes-rendus des 13èmes rencontres de la Société Francophone de Classification (SFC '06)*, Metz, France, pages 157–162. Presses Universitaires de Montréal, 2006

4. L. Szathmary, S. Maumus, P. Petronin, Y. Toussaint, and A. Napoli. Vers l'extraction de motifs rares. In G. Ritschard and C. Djeraba, editors, *Extraction et Gestion des Connaissances (EGC '06)*, Lille, France, pages 499–510. RNTI-E-6, Cépaduès-Éditions Toulouse, 2006. (best paper award)
5. S. Maumus, A. Napoli, L. Szathmary, and S. Visvikis-Siest. Fouille de données biomédicales complexes : extraction de règles et de profils génétiques dans le cadre de l'étude du syndrome métabolique. In G. Perrière, A. Guénoche, and C. Gourgeon, editors, *Journées Ouvertes Biologie Informatique Mathématiques (JOBIM '05)*, Lyon, France, pages 169–173, Jul 2005
6. L. Szathmary and A. Napoli. Les treillis de Galois pour l'organisation et la gestion des connaissances. In M. Chavent, O. Dordan, C. Lacomblez, M. Langlais, and B. Patouille, editors, *11èmes Rencontres de la Société Francophone de Classification (SFC '04)*, Bordeaux, France, pages 298–301, Sep 2004. (short version)

### **International Workshop / Atelier international avec comités de sélection et actes**

1. L. Szathmary and A. Napoli. Knowledge organisation and information retrieval using Galois lattices. In R. Dieng-Kuntz and N. Matta, editors, *Workshop on Knowledge Management and Organizational Memories – ECAI '04 (16th European Conf. on Artificial Intelligence)*, Valencia, Spain, pages 73–78, Aug 2004

### **National (French) Workshop / Atelier national avec comités de sélection et actes**

1. S. Maumus, A. Napoli, L. Szathmary, and S. Visvikis-Siest. Exploitation des données de la cohorte STANISLAS par des techniques de fouille de données numériques et symboliques utilisées seules ou en combinaison. In *Workshop on Fouille de Données Complexes dans un Processus d'Extraction des Connaissances – EGC '05 (5èmes Journées d'Extraction et Gestion des Connaissances)*, Paris, France, pages 73–76, 2005

### **Technical Reports / Rapports de recherche**

1. L. Szathmary, P. Valtchev, and A. Napoli. Efficient Mining of Frequent Closures with Precedence Links and Associated Generators. Research Report RR-6657, INRIA, 2008
2. L. Szathmary, S. Maumus, and A. Napoli. Mining Rare Association Rules. LORIA Research Report 00102909 (<http://hal.inria.fr/inria-00102909>), Oct 2006
3. S. Maumus, L. Szathmary, A. Napoli, E. Albuissou, and S. Visvikis-Siest. Towards a global methodology for mining cohorts with biological and genetic data. Rapport de Contrat, Nov 2005. (Contrat de Plan Etat-Région, PRST Intelligence Logicielle)

### **Miscellaneous / Autres**

1. L. Szathmary and A. Napoli. CORON: A Platform for Itemset Mining Algorithms. In *Fourth Intl. Conf. on Formal Concept Analysis (ICFCA '06)*, Dresden, Germany, Feb 2006. (oral communication and demo, without paper)

### **Software / Logiciel**

1. L. Szathmary and A. Napoli. The CORON Data Mining Platform. (<http://coron.loria.fr>)