

## Curriculum Vitae Siegfried Nijssen

Siegfried Gerardus Remius Nijssen was born April 29, 1978 in The Hague, The Netherlands.

Nationality: Dutch and Belgian (double nationality)

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<http://www.liacs.nl/~snijssen>

Languages: Dutch (Native), English (Fluent), French (Reading: good; speaking and writing: basic), German (Reading: good; speaking and writing: basic).

### Topics of interest:

- Data Mining (Pattern mining, Graph mining, Inductive databases)
- Machine Learning (Induction of models under constraints, Inductive Logic Programming)
- Algorithms (Complexity of graph algorithms)
- Constraint Programming (Mining and learning using CP)
- Applications of these techniques in bio- and chemoinformatics

### Education:

1. August 1997: "Propedeuse" (first year university diploma) in Computer Science, Leiden University, The Netherlands
2. August 1997: "Propedeuse" (first year university diploma) in Mathematics, Leiden University, The Netherlands
3. November 2000: MSc in Computer Science; title of thesis: "Data Mining using Logic"; supervisor: Joost N. Kok, Leiden University, The Netherlands; degree: "cum laude".
4. May 2006: PhD in Computer Science, title of thesis: "Mining Structured Data", promotor: Joost N. Kok, Leiden University, The Netherlands

## Positions:

1. September 1998 – December 2000: Student assistant at Leiden University, The Netherlands, assisting in courses
2. January 2001 – August 2005: PhD student at Leiden University, The Netherlands, in the group of Joost N. Kok
3. September 2005 – August 2006: Post-doctoral researcher at the Albert-Ludwigs-University of Freiburg, Germany, in the group of Luc De Raedt, working on EU IST-FET project “Inductive Querying” (IQ), with as partners the University of Antwerp (Bart Goethals, Belgium), the Jozef Stefan Institute (Saso Dzeroski, Slovenia), INSA Lyon (Jean-François Boulicaut, France), the University of Wales in Aberystwyth (Ross D. King, Wales) and the University of Helsinki (Heikki Mannila, Finland).
4. September 2006 – August 2008: Post-doctoral researcher at the Katholieke Universiteit Leuven, Belgium, in the group of Luc De Raedt, working on the EU IST-FET project IQ, with the same additional partners.
5. September 2008: Post-doctoral researcher at the Katholieke Universiteit Leuven, Belgium, in the group of Luc De Raedt, working on the EU IST-FET project BISON.
6. October 2008 – September 2011: FWO post-doctoral fellow at the Katholieke Universiteit Leuven, Belgium.
7. October 2011 – September 2014: FWO post-doctoral fellow at the Katholieke Universiteit Leuven, Belgium.
8. September 2011 – December 2011: Lecturer at Leiden University, The Netherlands.

## Awards:

1. Winner of the yearly Master's Thesis price of the district South-Holland of the Dutch Computer Science Foundation, 2001.
2. Nominated for the “discovery of the year” award of the Faculty of Mathematics and Natural Sciences, Leiden University, 2006.
3. Innovation award of the “Mining Patterns and Subgroups” workshop at the Lorentz center, Leiden, 2010, together with Tias Guns and Luc De Raedt for the contribution “k-Pattern Set Mining under Constraints”.

## Grants:

1. FWO Post-doc Grant. “From Constraints to Knowledge”, October 2008 – September 2011.
2. FWO Post-doc Grant. “An Integrated Solver for Data Mining”, October 2011 – September 2014.
3. FWO Project Grant, joint with L. De Raedt and B. Goethals. “Principles of Knowledge Discovery in Pattern Sets”, January 2009 – December 2012.
4. FWO Project Grant, joint with L. De Raedt, B. Goethals, N. Tatti, J. Vreeken. “Instant Interactive Data Exploration”, January 2012 – December 2015.

## Teaching:

1. Courses in Leiden as student: assisting in the courses on programming languages (1998-2004), computer architecture (1999-2000), compiler construction (1999), algorithms (2001-2002), databases (2003), complexity (2004)
2. Courses in Freiburg as post-doc: giving some of the lectures in the machine learning course (2006)
3. Courses in Leuven as post-doc: assisting in the course on “fundamentals of computer science” (2007-2011); students in the seminar on scientific training (2007-2010); 6 lectures on “fundamentals of computer science” (2011); 2 lectures of “capita selecta in artificial intelligence” (2011, spring); 2 lectures of “capita selecta in artificial intelligence” (2011, autumn)
4. Courses in Leiden as visiting lecturer: computational intelligence (2011).
5. In Leuven as post-doc: elected as “ombuds” for the 2<sup>nd</sup> bachelor Computer Science (2008-2009), 2<sup>nd</sup> and 3<sup>rd</sup> bachelor Computer Science (2009-2010), whole bachelor (2010-2011).
6. Supervised master's thesis projects: Kim Cui (Leiden, 2004, together with Eric-Wubbo Lameijer), Roel Rymenants (Leuven, 2009), Mathias Verbeke (Leuven, 2009, together with Bettina Berendt), Lucie Van Hove (Leuven, 2011, together with Bettina Berendt), Livio Van Rymenant (Leuven, 2011, together with Jan Ramon), Joris Renkens (Leuven, 2011); Boris Cnapelinckx (Leuven, 2012, together with Tias Guns), Tonny Vander Poorten (Leuven, 2012, together with Tias Guns), Su Pengda (Leuven, 2012, together with Hendrik Blockeel); bachelor projects: Tijmen Moerland (Leiden, 2003, together with Eric-Wubbo Lameijer).
7. Co-supervising the PhD thesis of Tias Guns (Leuven, with Luc De Raedt).
8. External reviewer of PhD thesis of Wilhelmiina Hamalainen (Helsinki, 2010).
9. Jury member of the PhD committee of Anton Dries (Leuven, 2010).

## Services to the community:

1. **Co-chair** of the European Conference on Machine Learning and the European Conference on Principles and Practice of Knowledge Discovery in Databases (ECML PKDD), 2013.
2. Tutorial **co-chair** of the European Conference on Machine Learning and the European Conference on Principles and Practice of Knowledge Discovery in Databases (ECML PKDD), 2012.
3. Workshop and tutorial **co-chair** of the European Conference on Machine Learning and the European Conference on Principles and Practice of Knowledge Discovery in Databases (ECML PKDD), 2008.
4. Member of the **editorial board** of the the Machine Learning journal (ML), 2010.
5. **Co-chair** of the International Workshop on Constraint-based Mining and Learning (CMILE), 2007.
6. **Co-chair** of the International Workshop on Open Source Data Mining (OSDM), 2005.
7. **Co-chair** of the International Workshop on Mining Graphs, Trees and Sequences (MGTS), 2004.
8. **Co-organizer** of the Dagstuhl Seminar on “Constraint programming meets machine

- learning and data mining”, 2011.
9. **Co-organizer** of the International Workshop on Mining Graphs, Trees and Sequences (MGTS), 2003.
  10. Member of the program committee of the European Conference on Machine Learning and the European Conference on Principles and Practice of Knowledge Discovery in Databases (ECML PKDD), 2006-2012.
  11. Member of the senior program committee of the International Joint Conference on Artificial Intelligence (IJCAI), 2011.
  12. Member of the program committee of the International Joint Conference on Artificial Intelligence (IJCAI), 2009.
  13. Member of the program committee of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2009-2012.
  14. Member of the program committee of the SIAM International Conference on Data Mining (SDM), 2008-2011.
  15. Member of the program committee of the European Conference on Artificial Intelligence (ECAI), 2008, 2010.
  16. Member of the program committee of the IEEE International Conference on Data Mining (ICDM), 2008-2012.
  17. Member of the program committee of the International Conference on Discovery Science (DS), 2009.
  18. Member of the program committee of the ACM Conference on Information and Knowledge Management (CIKM), 2007.
  19. Member of the program committee of the International Workshop on Mining and Learning with Graphs (MLG), 2006-2007, 2009.
  20. Member of the program committee of the International Workshop on going From Local Patterns to Global Models (LeGo), 2008-2009.
  21. Member of the program committee of the International Workshop on Knowledge Discovery in Inductive Databases (KDID), 2006.
  22. Member of the program committee of the International Workshop on Knowledge Discovery from XML documents (KDXD), 2006.
  23. Reviewer for the Journal of Machine Learning.
  24. Reviewer for the Journal of Machine Learning Research.
  25. Reviewer for the Journal of Data Mining and Knowledge Discovery.
  26. Reviewer for the Journal of Intelligent Data Analysis.
  27. Reviewer for the Journal of Knowledge and Information Systems.
  28. Reviewer for the International Journal of Data Mining and Bioinformatics.
  29. Reviewer for the IEEE Transactions on Nanobioscience.
  30. Reviewer for the IEEE Transactions on Knowledge and Data Engineering.
  31. Reviewer for the SIGKDD Explorations.
  32. Reviewer for the ACM Transactions on Knowledge Discovery from Data
  33. Reviewer for Fundamenta Informaticae.
  34. Reviewer for Theoretical Computer Science.
  35. Reviewer for the ACM International Conference on Knowledge Discovery and Data Mining (KDD), 2005-2008.
  36. Reviewer for the SIAM International Conference on Data Mining (SDM), 2007.
  37. Reviewer for the International Conference on Data Engineering (ICDE), 2007.
  38. Reviewer for the International Conference on Machine Learning (ICML), 2007.

39. Reviewer for the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2007.
40. Reviewer for the IEEE International Conference on Data Mining (ICDM), 2006.
41. Reviewer for the European Conference on Machine Learning and the European Conference on Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD), 2004.

## By category

Within square brackets are given the numbers of citations according to Google Scholar.

## **Journals:**

Within brackets are given the impact factors of the journals according to the ISI citation index.

1. J. Renkens, G. Van den Broeck, S. Nijssen. *k-Optimal: A Novel Approximative Inference Algorithm for ProbLog*. In: Machine Learning, 2012. (2009: 1.663, 2010: 1.967) **(Accepted)**
2. Tias Guns, Siegfried Nijssen, Luc De Raedt. *k-Pattern set mining under constraints*. In: IEEE Transactions on Knowledge and Data Engineering, 2011. (2009: 2.285, 2010: 1.851) [3] **(Preprint)**
3. Tias Guns, Siegfried Nijssen, Luc De Raedt. *Itemset mining: A constraint programming perspective*. In: Artificial Intelligence, volume 175 (12-13), pages 1951-1983, 2011. (2009: 3.036, 2010: 2.533)
4. S. Nijssen, E. Fromont. *Optimal Constraint-based Decision Tree Induction from Itemset Lattices*. In: Data Mining and Knowledge Discovery, volume 21(1), pages 9-51, 2010. (2009: 2.950, 2010: 1.238) [4]
5. A. Dries, S. Nijssen, L. De Raedt. *Mining Predictive k-CNF Expressions*. In: IEEE Transactions on Knowledge and Data Engineering, volume 22(5), pages 743-748, 2010. (2010: 2.236) [2]
6. J. Ramon, S. Nijssen. *Polynomial Delay Enumeration of Monotone Graph Classes*. In: Journal of Machine Learning Research, volume 10, pages 907-929, 2009. (2009: 2.789, 2010: 2.974) [8]
7. J. Kazius, S. Nijssen, J.N. Kok, T. Bäck, A.P. IJzerman. *Substructure Mining Using Elaborate Chemical Representation*. In: Journal of Chemical Information and Modeling, volume 46, pages 597-605, 2006. (2007: 2.986, 2008: 3.528) [47]
8. Y. Chi, S. Nijssen, R. Muntz, J.N. Kok. *Frequent Subtree Mining - An Overview*. In: Fundamenta Informaticae, volume 66, pages 161-198, IOS Press, 2005. (2006: 0.586, 2007: 0.693) **[186]**
9. S. Nijssen and T. Bäck. *An analysis of the behaviour of simplified genetic algorithms on trap functions*. In IEEE Transactions on Evolutionary Computation, volume 7(1), pages 11-22, 2003. (2004: 3.206, 2005: 1.568) [23]

**International conferences with refereed proceedings or refereed post-workshop proceedings:**

10. A. Dries, S. Nijssen. *Mining Patterns in Networks using Homomorphism*. In: Proceedings of the SIAM International Conference on Data Mining (SDM), 2012. **(Accepted)**
11. J. Renkens, G. Van den Broeck, S. Nijssen. *k-Optimal: A Novel Approximative Inference Algorithm for ProbLog (Abstract)*. Proceedings of the 21st International Conference on Inductive Logic Programming, revised and selected papers, Lecture Notes in Computer Science, 2012. **(Accepted)**
12. T. Guns, S. Nijssen, L. De Raedt. *Evaluating Pattern Set Mining Strategies in a Constraint Programming Framework*. In: Proceedings of the 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2011.
13. T. Guns, H. Sun, K. Marchal, S. Nijssen. *Cis-regulatory Module Detection using Constraint Programming*. In: IEEE International Conference on Bioinformatics and Biomedicine (BIBM), pages 366-368, 2010. [1]
14. S. Nijssen, T. Guns. *Integrating Constraint Programming and Itemset Mining*. In: Proceedings of the 14th European Conference on Machine Learning and Knowledge Discovery in Databases (ECMLPKDD), pages 467-482, 2010. [1]
15. L. De Raedt, T. Guns, S. Nijssen. *Constraint Programming for Data Mining and Machine Learning*. In: Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI), 2010. [6]
16. A. Dries, S. Nijssen, L. De Raedt. *A Query Language for Analyzing Networks*. In: Proceedings of the 18<sup>th</sup> ACM Conference on Information and Knowledge Management (CIKM), 2009. [8]
17. S. Nijssen, T. Guns, L. De Raedt. *Correlated Itemset Mining in ROC Space: A Constraint Programming Approach*. In: Proceedings of the 15<sup>th</sup> ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2009. [35]
18. S. Nijssen, L. De Raedt. *Grammar Mining*. In: Proceedings of the SIAM International Conference on Data Mining (SDM), 2009.
19. L. De Raedt, T. Guns, S. Nijssen. *Constraint Programming for Itemset Mining*. In: Proceedings of the 14<sup>th</sup> ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2008. [40]
20. S. Nijssen. *Bayes Optimal Classification for Decision Trees*. In: Machine Learning, Proceedings of the Twenty-Fifth International Conference (ICML), 2008.
21. B. Bringmann and S. Nijssen. *What is Frequent in a Single Graph?* In: Advances in

- Knowledge Discovery and Data Mining, 12<sup>th</sup> Pacific-Asia Conference (PAKDD), pages 858-863, 2008. [27]
22. S. Nijssen and L. De Raedt. *IQL: A Proposal for an Inductive Query Language*, extended version. In: Proceedings of the Fifth International Workshop on Knowledge Discovery in Inductive Databases (KDID), revised and selected papers, Lecture Notes in Computer Science, 2007. [11]
  23. S. Nijssen and E. Fromont. *Mining Optimal Decision Trees from Itemset Lattices*. In: Proceedings of the 13<sup>th</sup> ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), pages 530-539, 2007. [22]
  24. B. Bringmann, A. Zimmermann, L. De Raedt and S. Nijssen. *Don't be afraid of simpler patterns*. In: Proceedings of the 10th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD), volume 4213 of Lecture Notes in Computer Science, pages 55-66, 2006. [48]
  25. S. Nijssen and J.N. Kok. *Multi-Class Correlated Pattern Mining*, extended version. In: Proceedings of the Fourth International Workshop on Knowledge Discovery in Inductive Databases (KDID), revised and selected papers, volume 3933 of Lecture Notes in Computer Science, pages 165-187, 2006. [20]
  26. S. Nijssen and J.N. Kok. *A quickstart in frequent structure mining can make a difference*. In: Proceedings of the 10<sup>th</sup> ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), pages 647-652, 2004. [280]
  27. S. Nijssen and J.N. Kok. *Ideal refinement of datalog clauses using primary keys*. In: Proceedings of the 16th European Conference on Artificial Intelligence (ECAI), pages 520-524, 2004. [2]
  28. S. Nijssen and J.N. Kok. *Efficient frequent query discovery in FARMER*. In: Proceedings of the 7th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD), volume 2431 of Lecture Notes in Artificial Intelligence, pages 350-362, 2003. [41]
  29. S. Nijssen and J.N. Kok. *Faster association rules for multiple relations*. In: Proceedings of the Seventeenth International Joint Conference on Artificial Intelligence (IJCAI), pages 891-896, 2001. [75]

### **Tutorials:**

30. B. Bringmann, S. Nijssen, N. Tatti, J. Vreeken, A. Zimmermann. *Mining Sets of Patterns: Next Generation Pattern Mining*. In: IEEE International Conference on Data Mining (ICDM), 2011.
31. L. De Raedt, S. Nijssen. *Machine Learning and Data Mining: Challenges and*

*Opportunities for Constraint Programming*. In: International Conference on Constraint Programming (CP), 2011.

32. B. Bringmann, S. Nijssen, N. Tatti, J. Vreeken, A. Zimmermann. *Mining Sets of Patterns*. In: European Conference on Machine Learning and Knowledge Discovery in Databases (ECMLPKDD), 2010.

#### **Book chapters:**

33. A. Dries, S. Nijssen, L. De Raedt. BiQL: A Query Language for Analyzing BisoNets. In: *Biosociative Networks*, Springer, 2012. **(Accepted)**
34. S. Nijssen. *Pattern mining*. In: *Encyclopedia of Systems Biology*, Springer. 2011.
35. J. Besson, J-F. Boulicaut, T. Guns, S. Nijssen. *Generalizing Itemset Mining in a Constraint Programming Setting*. In: *Inductive Databases and Queries: Constraint-Based Data Mining*, S. Dzeroski, B. Goethals, and P. Panov (Eds), Springer. September 2010.
36. B. Bringmann, S. Nijssen, A. Zimmermann. *From Local Patterns to Classification Models*. In: *Inductive Databases and Queries: Constraint-Based Data Mining*, S. Dzeroski, B. Goethals, and P. Panov (Eds), Springer. September 2010.
37. R.D. King, A. Schierz, A. Clare, J. Rowland, S. Nijssen, J. ramon. *Inductive Queries for a Drug Designing Robot Scientist*. In: *Inductive Databases and Queries: Constraint-Based Data Mining*, S. Dzeroski, B. Goethals, and P. Panov (Eds), Springer. September 2010.
38. S. Nijssen. *Constraint-based Mining*. In: *Encyclopedia of Machine Learning*, Springer. October 2010.
39. S. Nijssen. *Tree Mining*. In: *Encyclopedia of Machine Learning*, Springer. October 2010.

#### **International workshops with refereed proceedings or unrefereed international conferences:**

40. Joris Renkens, Guy Van den Broeck, Siegfried Nijssen. *k-Optimal: A Novel Approximate Inference Algorithm for ProbLog*. In: *Proceedings of the 21th International Conference on Inductive Logic Programming (ILP)*, 2011.
41. Siegfried Nijssen, Aida Jimenez, Tias Guns. *From Multi-Relational Pattern Mining to Constraint Programming*. In: *Workshop on Declarative Pattern Mining, International Conference on Data Mining (DPM, ICDM)*, 2011.
42. Tias Guns, Siegfried Nijssen, Albrecht Zimmermann, Luc De Raedt. *Declarative Heuristic Search for Pattern Set Mining*. In: *Workshop on Declarative Pattern Mining, International Conference on Data Mining (DPM, ICDM)*, 2011.

43. Luc De Raedt, Siegfried Nijssen. *Towards Programming Languages for Machine Learning and Data Mining* (Extended Abstract). In: Foundations of Intelligent Systems (ISMIS): 25-32, 2011. [2]
44. A. Dries, S. Nijssen. *Analyzing Graph Databases by Aggregate Queries*. In: Proceedings of the Eighth International Workshop on Mining and Learning with Graphs (MLG), 2010. [1]
45. M. Verbeke, B. Berendt and S. Nijssen. *Data mining, interactive semantic structuring, and collaboration: A diversity-aware method for sense-making in search*. In: Living Web, 2009.
46. B. Bringmann, S. Nijssen and A. Zimmermann. *Pattern-based Classification: A Unifying Perspective*. In: Proceedings of 'From Local Patterns to Global Models': Second ECML PKDD Workshop (LeGo), 2009. [8]
47. H. Blockeel and S. Nijssen. *Induction of Node Label Controlled Graph Grammar Rules*. In: Proceedings of the Sixth International Workshop on Mining and Learning with Graphs (MLG), 2008. [4]
48. J. Ramon and S. Nijssen. *General Graph Refinement with Polynomial Delay*. In: Proceedings of the Fifth International Workshop on Mining and Learning with Graphs (MLG), 2007. [3]
49. B. Bringmann and S. Nijssen. *What is Frequent in a Single Graph?* In: Proceedings of the Fifth International Workshop on Mining and Learning with Graphs (MLG), 2007.
50. S. Nijssen and L. De Raedt. *IQL: A Proposal for an Inductive Query Language*. In: Proceedings of the Fifth International Workshop on Knowledge Discovery in Inductive Databases (KDID), 2006.
51. S. Nijssen. *Mining Interpretable Subgraphs*. In: Proceedings of the Fourth International Workshop on Mining and Learning with Graphs (MLG), 2006.
52. S. Nijssen and J.N. Kok. *Frequent Subgraphs: Runtimes Don't Say Everything*. In: Proceedings of the Fourth International Workshop on Mining and Learning with Graphs (MLG), 2006. [13]
53. S. Nijssen and J.N. Kok. *On Multi-Class Correlated Pattern Mining*. In: Proceedings of the Fourth International Workshop on Knowledge Discovery in Inductive Databases (KDID), 2005.
54. S. Nijssen and J.N. Kok. *The Gaston tool for frequent subgraph mining*. In: Proceedings of the International Workshop on Graph-Based Tools (Grabats), volume 127 of Electronic Notes in Theoretical Computer Science, pages 77-87, 2004. [34]

55. S. Nijssen and J.N. Kok. *Frequent graph mining and its application to molecular databases*. In: Proceedings of the IEEE International Conference on Systems, Man and Cybernetics (SMC), invited sessions, 2004. [26]
56. S. Nijssen and J.N. Kok. *Efficient discovery of frequent unordered trees*. In: Proceedings of the First International Workshop on Mining Graphs, Trees and Sequences (MGTS), 2003. [109]

#### **National conferences with refereed proceedings:**

57. T. Guns, S. Nijssen and L. De Raedt. *Constraint Programming for Correlated Itemset Mining* (abstract). In: Proceedings of the 21th Belgium/Netherlands Conference on Artificial Intelligence (BNAIC), 2009.
58. S. Nijssen and E. Fromont. *Apprentissage d'arbres de décision optimaux à partir de treillis d'itemsets*. In: Proceedings of the Conférence francophone sur l'apprentissage automatique, 2007.
59. S. Nijssen and E. Fromont. *Learning Optimal Decision Trees*. In: Proceedings of the Annual Machine Learning Conference of Belgium and The Netherlands (Benelearn), pages 53-60, 2007.
60. S. Nijssen and J.N. Kok. *On Multi-Class Correlated Pattern Mining* (abstract). In: Proceedings of the 18th Belgium/Netherlands Conference on Artificial Intelligence (BNAIC), 2006.
61. S. Nijssen and J.N. Kok. *Proper refinement of datalog clauses using primary keys*. In: Proceedings of the 15th Belgium/Netherlands Conference on Artificial Intelligence (BNAIC), 2003.
62. S. Nijssen and T. Bäck. *An analysis of the behavior of simplified evolutionary algorithms on trap functions* (abstract). In: Proceedings of the 14th Belgium/Netherlands Conference on Artificial Intelligence (BNAIC), 2002.
63. S. Nijssen and J.N. Kok. *Tree sets: Towards a set-oriented view on multi-relational data mining*. In: Proceedings of the 14th Belgium/Netherlands Conference on Artificial Intelligence (BNAIC), 2002.

#### **Editorships:**

64. L. De Raedt, S. Nijssen, B. O'Sullivan, P. Van Hentenryck. *Constraint Programming meets Machine Learning and Data Mining*. Dagstuhl seminar, 2011.
65. S. Nijssen, L. De Raedt. *Proceedings of the International Workshop on Constraint-Based*

*Mining and Learning*, 2007.

66. B. Goethals, S. Nijssen and M.J. Zaki. *Proceedings of the Open Source Data Mining Workshop*. ACM Press, 2005.
67. S. Nijssen, T. Meinl, G. Karypis. *Proceedings of the Third International Workshop on Mining Graphs, Trees and Sequences*. 2005.

#### **Unrefereed journals:**

68. B. Goethals, S. Nijssen and M.J. Zaki. *Open Source Data Mining: Workshop Report*. In: SIGKDD Explorations - Newsletter of the ACM Special Interest Group on Knowledge Discovery and Data Mining, 2006.

#### **Technical reports and theses:**

69. S. Nijssen, E. Fromont. *Mining optimal decision trees from itemset lattices*. Technical Report 476, KU Leuven, 2007.
70. S. Nijssen. *Mining Structured Data*. PhD Thesis. Leiden Institute of Advanced Computer Science, Universiteit Leiden, 2006.
71. S. Nijssen and J.N. Kok. *Efficient discovery of frequent unordered trees: Proofs*. Technical Report 1, Leiden Institute of Advanced Computer Science, Universiteit Leiden, 2003.
72. S. Nijssen. *Data Mining using Logic*. Master's Thesis. Leiden Institute of Advanced Computer Science, Universiteit Leiden, 2000.

#### **Selection of presentations without publications:**

73. T. Guns, H. Sun, S. Nijssen, A. Sanchez-Rodriguez, L. De Raedt, K. Marchal. *Proximity-based cis-regulatory module detection using constraint programming for itemset mining*. Poster at the 9<sup>th</sup> European Conference on Computational Biology (ECCB), Ghent, September 26-29, 2010.
74. S. Nijssen. *Mining Grammars under Constraints*. Black Forest Workshops, Titisee, Germany, March 16, 2006.
75. S. Nijssen. *Graph Mining - An Overview*. Presentation at the Seminar on Metabolic Modeling, Helsinki, December 1, 2005.
76. S. Nijssen. *Efficiently Mining Structured Data & An Application to Chemistry*. Discovery of the week presentations, Leiden, November 8, 2005.

77. S. Nijssen. *Mining Structures*. Autumn days of the Institute for Programming research and Algorithmics (IPA), November 24, 2004.
78. S. Nijssen. *Frequent Structure Mining: Efficiency Issues*. Introduction at the Second International Workshop on Mining Graphs, Trees and Sequences (MGTS), September 24, 2004.
79. S. Nijssen. *A quickstart in frequent structure mining can make a difference*. At the Black Forest Workshop on Inductive Databases and Constraint-based Mining, Hinterzarten, Germany, March 11-13, 2004.
80. S. Nijssen. *Data Mining using Logic: On more efficient implementations of ILP algorithms*. Invited talk at the Leuven-Freiburg Workshop on Machine Learning (LF-01), Oostkamp, Belgium, March 14-16, 2001.
81. S. Nijssen. *Data Mining using Logic*. At the Dagstuhl Workshop on Intelligent Data Analysis, Dagstuhl, 2000.