

# **Grigorios D. Tsoumakas**

Lecturer

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## **Extensive Curriculum Vitae**

- **Personal Information**
- **Studies**
- **Scholarships**
- **Research Activities**
- **Research Projects**
- **Teaching Experience**
- **Scientific Activities**
- **Publications**
- **Citations**
- **Other Information**

Thessaloniki, December 2012



## 1. Personal Information

Date of birth: 28/3/1977  
Place of birth: Thessaloniki  
Marital status: Married, no children  
Military obligations: Fulfilled. Pvt Research & Informatics, 8/8/2005 - 8/8/2006  
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## 2. Studies

### University degrees

2001-2005 PhD, Dept. of Informatics, Aristotle University of Thessaloniki, Greece.  
1999-2000 M.Sc. in Artificial Intelligence, Division of Informatics, University of Edinburgh, U.K. Grade A-, Excellent (distinction).  
1994-1999 Honours, Dept. of Informatics, Aristotle University of Thessaloniki, Greece. Grade 8.1 out of 10, Very Good.

### Foreign languages

*English:* Very good reading, writing and communicating, Cambridge Proficiency, Grade B, 1995.

*German:* Elementary reading, writing and communicating, Grundstufe, Gesamtnote Befriedigends, 1993.

## 3. Scholarships

2002-2004 Three scholarships for corresponding paper presentations in European Conferences from a) the European Coordinating Committee for Artificial Intelligence (ECCAI), b) the Hellenic Artificial Intelligence Society (EETN) and c) the KDNET network of excellence.  
2001-2002 Two scholarships for attending corresponding schools, a) from the European Committee (project HPCF-2000-00401) for the school entitled "Intelligent Data Analysis" in Palermo, Italy and b) from Alexander S. Onassis public benefit foundation for the school entitled "The Data Avalanche: Reducing Information Overload", in Heraklion, Greece.  
1999-2000 Scholarship from the Student Awards Agency for Scotland covering the tuition fees of the MSc in Artificial Intelligence.

## 4. Research Interests

My research interests belong to the areas of Machine Learning and Knowledge Discovery in Databases. In specific, I have worked in the past/I am still working on the following topics:

- *Learning from Multi-Label Data.* Development of efficient and effective algorithms for predictive modelling from multi-label data (e.g. text, web, biology, music, image/video). Papers: J6, C15, C19, C24, C26, C29, C30, C31, C32, C34, C35, C37, C38, C39, C41, J15, J16.
- *Ensemble Methods.* Development of algorithms for the combination of multiple predictive models with the aim of increasing predictive accuracy. Papers: J3, J10, J11, J13, C2, C3, C4, C9, C14, C18, C20, C22, C33.

- *Text Mining*. Development of algorithms for learning from textual data, with emphasis on text streams and their challenges (e.g. concept drift). Papers: A4, J8, J12, C11, C16, C17, C21.
- *Learning for Planning*. Development of adaptive planning systems with the aid of machine learning techniques. Papers: A3, J2, C5, C6, C7, C8, C10.
- *Distributed Data Mining*. Development of algorithms that learn from geographically distributed databases. Algorithms focus on: a) discovering useful knowledge about the similarities and differences between the distributed databases, and b) construction of predictive models with high accuracy. Papers: A2, J1, J4, C2, C3, C4, C14, E1.
- *Reinforcement Learning*. Development of algorithms for efficient reinforcement learning, by utilizing transfer learning techniques. Papers: C28, C36.
- *Applications*. Application of machine learning algorithms for the analysis of real-world data (biology, environment, music, software engineering, recommender systems), with the aim of bringing out their practical value. Papers: A1, J5, J7, J9, C1, C12, C13, C23, C25, C27, C40.

## 5. Research Projects

- *Title*: Multilabel Classification Methods for Domains with Large Number of Labels. *Starting date*: 1/1/2009. *Ending date*: 31/12/2009. *Budget*: € 3805. *Source of funding*: Greek State Scholarships Foundation. *Role in the research team*: Principal investigator, leading a bilateral collaboration project with TU Darmstadt, Germany. The project led to the following publication: Tsoumakas, G., Loza Mencia, E., Katakis, I., Park, S.-H., Fürnkranz, J. (2009) "On the Combination of Two Decompositive Multi-Label Classification Methods", *Proc. ECML/PKDD 2009 Workshop on Preference Learning, Bled, Slovenia, pp. 114-129*.
- *Title*: I-NET (Interoperability Enterprise NetWork): Consortium on Interoperability, Flexibility and Adaptability of B2B Transactions across Enterprises. *Starting date*: 1/6/2007. *Ending date*: 31/10/2008. *Budget*: € 100750. *Source of funding*: Greek General Secretariat for Research and Technology. *Role in the research team*: Researcher, applying data mining techniques on past business transaction data with the goal of building a model that predicts the credibility of enterprises.
- *Title*: SWIM: Development of an Intelligent System for the management of Semantic Web Services. *Starting date*: 1/11/2005. *Ending date*: 31/10/2008. *Budget*: € 138240. *Source of funding*: Greek General Secretariat for Research and Technology. *Role in the research team*: Researcher, developing data mining methods for automated classification of Web services according to their application domain. Part of my work in this project is described in the following publication: Katakis, I., Meditskos, G., Tsoumakas, G., Bassiliades, N., Vlahavas, I. (2009) "On the Combination of Textual and Semantic Descriptions for Automated Semantic Web Service Classification", *Proc. 5th IFIP Conference on Artificial Intelligence Applications & Innovations (AIAI 2009), Thessaloniki, Greece, 23-25 April 2009*.
- *Title*: SWEL: Planning Systems in the Semantic Web for E-Learning. *Starting date*: 1/1/2005. *Ending date*: 31/12/2007. *Budget*: € 50000. *Source of funding*: Greek Ministry of National Education and Religious Affairs. *Role in the research team*: Researcher, responsible for the design of a text classification system that matches the textual description of an educational resource to one or more nodes of an educational terms ontology. Part of my work in this project is described in the following publication: Vrakas, D., Tsoumakas, G., Kokkoras, F., Bassiliades, N., Vlahavas, I., Anagnostopoulos, D. (2007) "PASER: A Curricula Synthesis System based on Automated Problem Solving", *International Journal on Teaching and Case Studies (IJTCS), 1(1/2), pp. 159-170, Inderscience*.
- *Title*: EUROCITIZEN: An interactive, agent-based, on line edutainment environment to promote European intercultural education and cooperation among citizens of Europe. *Starting date*: 1/9/2002. *Ending date*: 28/2/2005. *Budget*: € 750000. *Source of funding*: European Union under the IST program. *Role in the research team*: Developer, responsible for developing the question selection mechanism.

## 6. Teaching Experience

2011-today      Teaching the postgraduate course *Web Information Systems*, International Hellenic University, Greece.

2009-today	Teaching the postgraduate course Advanced Machine Learning & Knowledge Discovery, Dept. of Infomatics, AUTH, Greece.
2008-today	Teaching the undergraduate course Object Oriented Programming, Dept. of Infomatics, AUTH, Greece.
2007-today	Teaching the undergraduate courses Intelligent Autonomous Systems, Multiagent Systems, Decision Theory and Systems and Web Information Systems, Dept. of Infomatics, AUTH, Greece.
2001-2005	Teaching assistant for the undergraduate course Logic and Functional Programming, Dept. of Infomatics, AUTH, Greece (2 semesters).
2003-2005	Teaching assistant for the postgraduate course Machine Learning, Dept. of Infomatics, AUTH, Greece (2 semesters).
2001-2002	Lecturer in IEK Kalamaria and IEK Thessaloniki 2, for a total of 377 hours, in the specialties Industrial Software Technician, Tele-Infomatics Technician and Informatics Applications Specialist (3 semesters)
2002-2003	Lecturer of seminars for 57 hours in the project "Education of Teachers in the Exploitation of Information and Communication Technologies in Education" of the research programme "Information Society" of the 3rd KPS.
2002-2004	Consultant for SMEs of the areas of Thessaloniki and Chalkidiki in adopting e-business practices. Programme "Go-Digital" funded by the Greek Ministry of Development.
2001-2003	Lecturer of seminars in the Association of Greek Physicists, dept. of Central and Western Macedonia.

## 7. Scientific Activities

### Invited talks and lectures

- Invited lecture on "Learning from Multi-Label Data" at the 1<sup>st</sup> Hellenic Artificial Intelligence Summer School (HAISS), Thessaloniki, Greece, August 24, 2009
- PASCAL2 invited talk on "Ensemble Methods for Multi-Label Data" at the 2010 Supervised and Unsupervised Ensemble Methods workshop, part of the ECML PKDD 2010 conference, Barcelona, Spain, September 20, 2010.
- Invited postgraduate lecture on "Learning from Multi-Label Data" at the Department of Informatics of the Ionian University, Greece, Kerkyra, Greece, May 10, 2011.
- Invited lecture on "Multi-Label Learning for Concept-Based Retrieval: The ImageCLEF 2011 Experience" at the Informatics and Telematics Institute, Centre for Research & Technology – Hellas, Thessaloniki, Greece, November 16, 2011.

### Prizes and Awards

- Together with PhD student Ioannis Katakis we achieved the 3<sup>rd</sup> place at the tag recommendation task of the 2008 Discovery Challenge, an event of the 2008 European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD) 2008. Our approach was documented in the following peer-reviewed paper of the Discovery Challenge workshop of ECML PKDD 2008, which has since then received 24 citations (excluding self-citations): *Katakis, I., Tsoumakas, G., Vlahavas, I. (2008) "Multilabel Text Classification for Automated Tag Suggestion", Proc. ECML/PKDD 2008 Discovery Challenge Workshop, Antwerp, 2008.*
- My multi-label learning approach achieved the 2<sup>nd</sup> place at the instrument recognition track ISMIS 2011 international contest on music information retrieval (music instruments track). The approach of PhD student Eleftherios Spyromitros-Xioufis achieved the 1<sup>st</sup> place and a prize of 1000\$. Both our approaches were documented in the following peer-reviewed paper of the ISMIS 2011 conference, which we prepared after invitation: *Spyromitros-Xioufis, E., Tsoumakas, G., Vlahavas, I. (2011) "Multi-label Learning Approaches for Music Instrument Recognition", Proc. 9th International Symposium on Methodologies for Intelligent Systems (ISMIS 2011), Warsaw, Poland, pp. 734-743.*
- Together with MSc student Kostantinos Sechidis (now a funded PhD student at University of Manchester, UK) and PhD student Eleftherios Spyromitros-Xioufis we achieved the 1<sup>st</sup> place at the concept-based retrieval subtask of the photo annotation task of ImageCLEF 2011. Our approach was documented in the following non-reviewed paper of the CLEF 2011 conference: *Spyromitros-Xioufis, E., Sechidis, K., Tsoumakas, G., Vlahavas, I. (2011) MLKD's Participation at the CLEF 2011 Photo Annotation and Concept-Based Retrieval Tasks, Proceedings CLEF 2011.*

### Conference Organization

- ECML PKDD 2012 publicity chair.
- ECML PKDD 2011 publicity chair together with Annalisa Appice.

### Workshop Organization

- "Learning from Multi-Label Data (MLD'10)" at the ICML 2010 conference in Haifa, Israel, together with Min-Ling Zhang and Zhi-Hua Zhou.
- "Learning from Multi-Label Data (MLD'09)" at the ECML PKDD 2009 conference in Bled, Slovenia, together with Min-Ling Zhang and Zhi-Hua Zhou.
- "Mining Social Data (MSODA'08)" at the ECAI 2008 conference in Patras, Greece, together with Alexandros Nanopoulos.

### Tutorials

- "Mining Complex Dynamic Data" at the ECML PKDD 2011 conference in Athens, Greece, together with Myra Spiliopoulou, Irene Ntoutsi, Arthur Zimek and Hans-Peter Kriegel.
- "Learning from Multi-Label Data" at the ECML PKDD 2009 conference in Bled, Slovenia, together with Min-Ling Zhang and Zhi-Hua Zhou.

### Special Issues

- "Learning from Multi-Label Data", Machine Learning 88(1-2), July 2012, together with Min-Ling Zhang and Zhi-Hua Zhou.
- "ECAI'08 Workshop on Mining Social Data", Int. Journal on Data Warehousing and Mining 6(1), 2010, together with Alexandros Nanopoulos

### External examiner of international PhD theses

- Daniel Hernandez-Lobato, "Prediction Based on Averages over Automatically Induced Learners: Ensemble Methods and Bayesian Techniques", Escuela Politécnica Superior, Universidad Autónoma de Madrid, Spain, January 2010.
- Jesse Read, "Scalable Multi-Label Classification", Department of Computer Science, University of Waikato, New Zealand, September 2010.

### Other international collaborations

- Hosted PhD Student Everton Alvares Cherman from the University of São Paulo at São Carlos for 5 months (6/2012 - 10/2012) as part of an accepted research proposal by the São Paulo Research Foundation – FAPESP.
- Hosted PhD Student William Groves from the University of Minnesota for 2 months as part of an accepted application to the IJCAI'11 call for European AI labs to host a US graduate student for an extended visit.

### Selected Programme Committee Memberships

- European Conference on Machine Learning & Principles and Practice of Knowledge Discovery in Databases (ECML PKDD) 2012, 2011
- SIAM International Conference on Data Mining (SDM) 2012
- Asian Conference on Machine Learning (ACML) 2012
- European Conference on Artificial Intelligence (ECAI) 2012
- Knowledge Discovery in Databases (KDD) 2011, 2010
- International Joint Conference on Artificial Intelligence (IJCAI) 2011 (Senior PC)
- International Conference on Data Engineering (ICDE) 2011 (data mining & knowledge discovery track)
- International Conference on Machine Learning (ICML) 2010
- Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2009

### Selected Journal Paper Review Invitations

- Regular reviewer of papers from *Journal of Machine Learning Research*, *Machine Learning Journal*, *IEEE Transactions on Neural Networks and Neurocomputing*.
- Occasional reviewer of papers from *IEEE Transactions on Knowledge and Data Engineering*, *Data Mining and Knowledge Discovery*, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *Pattern Recognition* and *Statistical Analysis and Data Mining*.

## 8. Publications

I have edited 1 volume of papers and published 2 theses and 66 papers (6 [chapters](#) in books, 17 journal articles, 1 [encyclopedia](#) lemma and 42 papers in international conference/workshop proceedings). An up-to-

date list of publications with PDF links to the papers is available at:

<http://talos.csd.auth.gr/tsoumakas/publications.php>.

## Theses

- T1. Tsoumakas, G. (2000) "A Knowledge Based System for Rock Fracture Classification in Deep Boreholes", M.Sc. Thesis, Division of Informatics, University of Edinburgh, U.K., September 2000.
- T2. Tsoumakas, G. (2005) "Machine Learning for the Fusion of Multiple, Distributed Intelligent Systems", PhD Thesis (in Greek), Department of Informatics, Aristotle University of Thessaloniki, July 2005.

## Edited Volumes

- V1. Iliadis, L., Maglogiannis, I., Tsoumakas, G., Vlahavas, I., Bramer, M. (2009) "Artificial Intelligence Applications and Innovations: Proceedings of the 5th IFIP Conference on Artificial Intelligence Applications and Innovations (AIAI'2009)", April 23-25, 2009, Vol. 2962009, VIII, ISBN: 978-1-4419-0220-7.

## Book Chapters

- A1. Tsoumakas, G., Vlahavas, I. (2001) "Land Evaluation - An Artificial Intelligence Approach", in *Environmental Information Systems in Industry and Public Administration*, C. Rautenstrauch and S. Patig (eds.), Ch. 9, pp. 158-166, Idea Group Publishing.
- A2. Tsoumakas, G., Bassiliades, N., Vlahavas, I. (2004) "A Knowledge-based Web Information System for the Federation of Distributed Classifiers", in *Web Information Systems*, D. Taniar and W. Rahayu (eds.), Ch. 8, pp. 271-308, Idea Group Publishing.
- A3. Vrakas, D., Tsoumakas, G., Bassiliades, N., Vlahavas I. (2005) "Machine Learning for Adaptive Planning", in *Intelligent Techniques for Planning*, I. Vlahavas and D. Vrakas (eds.), Ch. 3, pp. 90-120, Idea Group Publishing.
- A4. Katakis, I., Tsoumakas, G., Vlahavas I. (2006) "Email Mining: Emerging Techniques for Email Management", in *Web Data Management Practices: Emerging Techniques and Technologies*, A. Vakali and G. Pallis (eds.), Ch. 10, pp 219-241, Idea Group Publishing.
- A5. Tsoumakas, G., Partalas, I., Vlahavas, I. (2009) "An Ensemble Pruning Primer", in *Applications of Supervised and Unsupervised Ensemble Methods*, G. Valentini and O. Okun (eds.), Studies in Computational Intelligence, Volume 245, Springer, pp 1-13.
- A6. Tsoumakas, G., Katakis, I., Vlahavas, I. (2010) "Mining Multi-Label Data", Part 6, Chapter 34, in *Data Mining and Knowledge Discovery Handbook*, L. Rokach and O. Maimon (eds.), Springer, pp. 667 – 285.

## Journal Articles

- J1. Tsoumakas, G., Angelis L., Vlahavas, I. (2004) "Clustering Classifiers for Knowledge Discovery from Physically Distributed Databases", *Data & Knowledge Engineering*, 49(3), pp. 223-242, Elsevier.
- J2. Vrakas, D., Tsoumakas, G., Bassiliades, N., Vlahavas, I. (2005) "HAP<sub>RC</sub>: An Automatically Configurable Planning System", *AI Communications*, 18(1), pp. 41-60, IOS Press.
- J3. Tsoumakas, G., Angelis, L., Vlahavas, I. (2005) "Selective Fusion of Heterogeneous Classifiers", *Intelligent Data Analysis*, 9(6), pp. 511-525, IOS Press.
- J4. Tsoumakas, G., Vlahavas, I. (2007) "A Scalable and Interoperable System for Classifier Sharing and Fusion", *Expert Systems with Applications*, 33(3), pp. 716-724, Elsevier.
- J5. Vrakas, D., Tsoumakas, G., Kokkoras, F., Bassiliades, N. Vlahavas, I., Anagnostopoulos, D. (2007) "PASER: A Curricula Synthesis System based on Automated Problem Solving", *International Journal on Teaching and Case Studies (IJTCS)*, 1(1/2), pp. 159-170, Inderscience.
- J6. Tsoumakas, G., Katakis, I. (2007) "Multi-Label Classification: An Overview", *International Journal of Data Warehousing and Mining*, 3(3), pp. 1-13, Idea Group Publishing.
- J7. Bibi, S., Tsoumakas, G., Vlahavas, I., Stamelos, I. (2008) "Regression via Classification applied on Software Defect Prediction", *Expert Systems with Applications*, 34(3), pp 2091-2101, Elsevier.

- J8. Katakis, I., Tsoumakas, G., Banos, E., Bassiliades, N., Vlahavas, I. (2008) "An Adaptive Personalized News Dissemination System", *Journal of Intelligent Information Systems*, 32(2), pp. 191-212, Springer.
- J9. Hatzikos, E.V., Tsoumakas, G., Tzanis, G., Bassiliades, N., Vlahavas, I. (2008) "An Empirical Study on Sea Water Quality Prediction", *Knowledge Based Systems*, 21(6), pp. 471-478, Elsevier.
- J10. Partalas, I., Tsoumakas, G., Hatzikos, E.V., Vlahavas, I. (2008) "Greedy Regression Ensemble Selection: Theory and an Application to Water Quality Prediction", *Information Sciences*, 178(20), pp. 3867-2879, Elsevier.
- J11. Partalas, I., Tsoumakas, G., Vlahavas, I. (2009) "Pruning an Ensemble of Classifiers via Reinforcement Learning", *Neurocomputing*, 72(7-9), pp. 1900-1909, Elsevier.
- J12. Katakis, I., Tsoumakas, G., Vlahavas, I. (2010) "Tracking Recurring Contexts using Ensemble Classifiers: An Application to Email Filtering", *Knowledge and Information Systems*, 22(3), pp. 371-391.
- J13. I. Partalas, G. Tsoumakas, I. Vlahavas, (2010) "An Ensemble Uncertainty Aware Measure for Directed Hill Climbing Ensemble Pruning", *Machine Learning*, 81(3), pp. pp. 257-282.
- J14. Tsoumakas, G., Katakis, I., Vlahavas, I. (2011) "Random k-Labelsets for Multi-Label Classification", *IEEE Transactions on Knowledge and Data Engineering*, 23(7), pp. 1079-1089, 2011
- J15. Tsoumakas, G., Spyromitros-Xioufis, E., Vilcek, J., Vlahavas, I. (2011) Mulan: A Java Library for Multi-Label Learning, *Journal of Machine Learning Research*, 12, pp. 2411-2414
- J16. Trohidis, K., Tsoumakas, G., Kalliris, G., Vlahavas, I. (2011) "Multi-label classification of music by emotion", *EURASIP Journal on Audio, Speech, and Music Processing* 2011, 2011:4, Published: 18 September 2011
- J17. Fachantidis, A., Partalas, I., Tsoumakas, G., Vlahavas, I. (In Press) "Transferring Task Models in Reinforcement Learning Agents", *Neurocomputing*.

## Encyclopedia Lemmata

- E1. Tsoumakas, G., Vlahavas, I. (2008) "Distributed Data Mining", in *Encyclopedia of Data Warehousing and Mining – 2<sup>nd</sup> Edition*, J. Wang (ed.), pp. 709-715, Idea Group Reference.

## Papers in Conference and Workshop Proceedings

- C1. Tsoumakas, G., Vlahavas, I. (1999) "ISLE: An Intelligent System for Land Evaluation", *Proc. ACAI'99 Workshop on Intelligent Techniques for Spatio-Temporal Data Analysis in Environmental Applications*, pp. 26-32, Chania, Greece.
- C2. Tsoumakas, G., Vlahavas, I. (2001) "Fuzzy Meta-Learning: Preliminary Results", *Proc. UK Workshop on Computational Intelligence (UKCI 01)*, pp. 43-48, Edinburgh, September 2001.
- C3. Tsoumakas, G., Vlahavas, I. (2002) "Distributed Data Mining of Large Classifier Ensembles", *Proc. (Companion Volume) 2<sup>nd</sup> Hellenic Conference on AI (SETN 2002)*, pp. 249-255, Thessaloniki, April 2002.
- C4. Tsoumakas, G., Vlahavas, I. (2002) "Effective Stacking of Distributed Classifiers", *Proc. 15<sup>th</sup> European Conference on Artificial Intelligence (ECAI 2002)*, IOS Press, pp. 340-344, Lyon, France, July 2002.
- C5. Vrakas, D., Tsoumakas, G., Vlahavas, I. (2002) "Towards adaptive Heuristic Planning through Machine Learning", *Proc. 21st Workshop of the UK Planning and Scheduling Special Interest Group (PlanSIG 2002)*, pp 12-21, Delft, The Netherlands, November 2002.
- C6. Vrakas, D., Tsoumakas, G., Bassiliades, N., Vlahavas, I. (2003) "Learning Rules for Adaptive Planning", *Proc. 13<sup>th</sup> International Conference on Automated Planning and Scheduling (ICAPS 2003)*, pp. 82-91, Trento, Italy, June 2003.
- C7. Tsoumakas, G., Vrakas, D., Bassiliades, N., Vlahavas, I. (2004) "Using the k Nearest Problems for Adaptive Multicriteria Planning", *Proc. 3<sup>rd</sup> Hellenic Conference on Artificial Intelligence (SETN 2004)*, Springer-Verlag, LNAI 3025, pp. 132-141, Samos, Greece, May 2004.
- C8. Tsoumakas, G., Vrakas, D., Bassiliades, N., Vlahavas, I. (2004) "Lazy Adaptive Multicriteria Planning", *Proc. 16th European Conference on Artificial Intelligence (ECAI 2004)*, IOS Press, pp. 693-697, Valencia, Spain, August 2004.

- C9. Tsoumakas, G., Katakis, I., Vlahavas, I. (2004) "Effective Voting of Heterogeneous Classifiers", *Proc. 15th European Conference on Machine Learning (ECML 2004)*, Springer-Verlag, LNAI 3201, pp. 465-476, Pisa, Italy, September 2004.
- C10. Tsoumakas, G., Meditskos, G., Vrakas, D., Bassiliades, N., Vlahavas, I. (2004) "Web Services for Adaptive Planning", *Proc. ECAI 2004 Workshop on Planning and Scheduling: Bridging Theory to Practice*, Valencia, Spain, August, 2004. Also appeared in *Planning, Scheduling and Constraint Satisfaction: From Theory to Practice*, Volume 117, Frontiers in Artificial Intelligence and Applications, L. Castillo, D. Borrajo, M.A. Salido and A. Oddi, (Eds.), pp. 159-168, IOS Press, February 2005.
- C11. Katakis, I., Tsoumakas, G., Vlahavas, I. (2005) "On the Utility of Incremental Feature Selection for the Classification of Textual Data Streams", *Proc. 10<sup>th</sup> Panhellenic Conference on Informatics (PCI 2005)*, pp. 338-348, Volos, Greece, November 2005.
- C12. Diplaris, S., Tsoumakas, G., Mitkas, P., Vlahavas, I. (2005) "Protein Classification with Multiple Algorithms", *Proc. 10<sup>th</sup> Panhellenic Conference on Informatics (PCI 2005)*, pp. 448-456, Volos, Greece, November 2005.
- C13. Bibi, S., Tsoumakas, G., Stamelos, I., Vlahavas, I. (2006) "Software Defect Prediction Using Regression via Classification", *Proc. 4th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA '06)*, pp. 330-337, Dubai/Sharjah, March 8-11, 2006.
- C14. Partalas, I., Tsoumakas, G., Katakis, I., Vlahavas, I. (2006) "Ensemble Pruning using Reinforcement Learning", *Proc. 4<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN 2006)*, LNAI 3955, pp 301-310, Heraklion, Greece, May 18-20, 2006.
- C15. Tsoumakas, G., Katakis, I., Vlahavas, I. (2006) "A Review of Multi-Label Classification Methods", *Proc. 2<sup>nd</sup> ADBIS Workshop on Data Mining and Knowledge Discovery (ADMKD 2006)*, pp 99-109, Thessaloniki, Greece September 2006.
- C16. Katakis, I., Tsoumakas, G., Vlahavas, I. (2006) "Dynamic Feature Space and Incremental Feature Selection for the Classification of Textual Data Streams", *Proc. ECML/PKDD-2006 International Workshop on Knowledge Discovery from Data Streams (IWKDD-2006)*, pp 107-116, Berlin, Germany, September 2006.
- C17. Banos, E., Katakis, I., Bassiliades, N., Tsoumakas, G., Vlahavas, I. (2006) "PersoNews: A Personalized News Reader Enhanced by Machine Learning and Semantic Filtering", *Proc. 5th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2006)*, Springer-Verlag, pp. 975-982, Montpellier, France, 2006.
- C18. Partalas, I., Hatzikos, E.V., Tsoumakas, G., Vlahavas, I. (2007) "Ensemble Selection for Water Quality Prediction", *Proc. 10th International Conference on Engineering Applications of Neural Networks (EANN 2007)*, Thessaloniki, Greece, 29-31 August 2007.
- C19. Tsoumakas, G., Vlahavas, I. (2007) "Random k-Labelsets: An Ensemble Method for Multilabel Classification", *Proc. 18th European Conference on Machine Learning (ECML 2007)*, Warsaw, Poland, 17-21 September 2007.
- C20. Partalas, I., Tsoumakas, G., Vlahavas, I. (2008) "Focused Ensemble Selection: A Diversity-Based Method for Greedy Ensemble Selection", *Proc. 18th European Conference on Artificial Intelligence (ECAI'08)*, Patras, Greece, 21-25 July 2008.
- C21. Katakis, I., Tsoumakas, G., Vlahavas, I. (2008) "An Ensemble of Classifiers for coping with Recurring Contexts in Data Streams", *Proc. 18th European Conference on Artificial Intelligence (ECAI'08)*, Patras, Greece, 21-25 July 2008.
- C22. Tsoumakas, G., Partalas, I., Vlahavas, I. (2008) "A Taxonomy and Short Review of Ensemble Selection", *Proc. ECAI 08 Workshop on Supervised and Unsupervised Ensemble Methods (SUEMA-08)*, 41-46, July 2008.
- C23. Trohidis, K., Tsoumakas, G., Kalliris, G., Vlahavas, I. (2008) "Multi-label Classification of Music into Emotions", *Proc. 9th International Conference on Music Information Retrieval (ISMIR 2008)*, Philadelphia, USA, 14-18 September 2008, pp 325-330.
- C24. Tsoumakas, G., Katakis, I., Vlahavas, I. (2008) "Effective and Efficient Multilabel Classification in Domains with Large Number of Labels", *Proc. ECML/PKDD 2008 Workshop on Mining Multidimensional Data (MMD'08)*, Antwerp, Belgium, 2008.

- C25. Katakis, I., Tsoumakas, G., Vlahavas, I. (2008) "Multilabel Text Classification for Automated Tag Suggestion", *Proc. ECML/PKDD 2008 Discovery Challenge Workshop*, Antwerp, 2008.
- C26. Spyromitros, E., Tsoumakas, G., Vlahavas, I. (2008) "An Empirical Study of Lazy Multilabel Classification Algorithms", *Proc. 5th Hellenic Conference on Artificial Intelligence (SETN 2008)*, Syros, Greece, 2-4 October 2008.
- C27. Katakis, I., Meditskos, G., Tsoumakas, G., Bassiliades, N., Vlahavas, I. (2009) "On the Combination of Textual and Semantic Descriptions for Automated Semantic Web Service Classification", *Proc. 5th IFIP Conference on Artificial Intelligence Applications & Innovations (AIAI 2009)*, Thessaloniki, Greece, 23-25 April 2009.
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I have personally presented 16 (C1, C2, C3, C4, C7, C8, C9, C10, C15, C19, C22, C31, C32, C33, C34, C37) of the above papers (all papers where I am the first author apart from C24 and in addition C33, C34 and C37 from those that I am not the first author). All other papers have been presented by co-authors.

## 9. Citations

My papers have attracted more than 1200 citations, excluding self-citations. My h-index is 16. An up-to-date list of citations per publication is available at: <http://talos.csd.auth.gr/tsoumakas/citations.php>.

## 10. Other Information

**Journal Impact Factor (source: Journal Citation Reports, ISI)**

Article	Journal	Publisher	2007	2008	2009	2010	2011
J1	Data & Knowledge Engineering	Elsevier	1.144	1.480	1.745	1.717	1.422
J2	AI Communications	IOS Press	0.585	0.608	0.755	0.837	0.500
J3	Intelligent Data Analysis	IOS Press	0.446	0.426	0.929	0.400	0.448
J4, J7	Expert Systems with Applications	Elsevier	1.177	2.596	2.908	1.956	2.455
J8	Journal of Intelligent Information Systems	Springer	0.796	1.075	0.980	0.875	0.618
J9	Knowledge-Based Systems	Elsevier	0.574	0.924	1.308	1.574	2.422
J10	Information Sciences	Elsevier	2.147	3.095	2.833	2.182	2.833
J11, J17	Neurocomputing	Elsevier	0.865	1.234	1.440	1.429	1.580
J12	Knowledge and Information Systems	Springer	0.844	1.733	2.211	2.000	2.225
J13	Machine Learning Journal	Springer	1.742	2.326	1.663	1.956	1.587
J14	IEEE Trans. on Knowledge & Data Eng.	IEEE	1.896	2.236	2.285	1.847	1.657
J15	Journal of Machine Learning Research	MIT Press	2.682	3.116	2.789	2.949	2.561
J16	EURASIP Journal on ASMP	EURASIP	-	-	-	0.341	0.709

**Acceptance ratio of selected conferences**

Paper	Conference	Accepted	Ratio	Percentage
C19	18 <sup>th</sup> European Conference on Machine Learning (ECML 2007)	54/595	1:11	9 %
C9	15 <sup>th</sup> European Conference on Machine Learning (ECML 2004)	45/312	1:6.9	15 %
C39	22 <sup>nd</sup> International Joint Conference on Artificial Intelligence	227/1325	1:5.8	17%
C37	ECML PKDD 2011	121:599	1:5	20 %
C20	18 <sup>th</sup> European Conference on Artificial Intelligence (ECAI 2008)	121/561	1:4.6	22 %
C4	15 <sup>th</sup> European Conference on Artificial Intelligence (ECAI 2002)	140/505	1:3.6	28 %
C8	16 <sup>th</sup> European Conference on Artificial Intelligence (ECAI 2004)	181/652	1:3.6	28 %