

# Elisabetta Fersini

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## Curriculum Vitae

### Personal Data

Name: Fersini, Elisabetta

Date of birth: 10-08-1979

Nationality: Italian

### Current Position

November 2019 - present **Associate Professor, Tenured**, *University of Milano-Bicocca*, Dept. of Informatics, Systems and Communication.

### Research Interests

**Machine Learning:** Learning and Inference algorithm for structured and unstructured data, discriminative and generative models

### Education

**PhD** in Computer Science, *University of Milano-Bicocca*, thesis on *Probabilistic Classification and Clustering Using Relational Models*

**Master Degree** in Computer Science, *University of Milano-Bicocca*, thesis on *Optimal Synchronization of Search Engine Caches*.

### Research Positions

2016 - 2019 **Assistant Professor, Tenure Track**, *University of Milano-Bicocca*, Dept. of Informatics, Systems and Communication.

2015 - 2016 **Senior Post-Doc**, *University of Milano-Bicocca*, Dept. of Informatics, Systems and Communication, research project (ref. Prof. F. Archetti): *Probabilistic Models, Statistical Learning and Inference for Big Data*.

2014 - 2014 **Senior Post-Doc**, *University of Milano-Bicocca*, Dept. of Informatics, Systems and Communication, research project (ref. Prof. E. Messina): *Development of a decision support system for e-justice*.

July 2012 **Visiting Researcher**, *University of Urbana-Champaign, Illinois USA*, reference: Prof. Dan Roth, project: *Machine Learning for Natural Language Processing: Constrained Inference on Conditional Random Fields*.

Oct 2010 - Dec 2010 **Visiting Researcher**, *Brunel University, London UK*, reference: Prof. X. Liu, project: *Classification and Clustering on Relational Data*.

2010 - 2013 **Post-Doc**, *University of Milano-Bicocca*, Dept. of Informatics, Systems and Communication, research project (ref. Prof. A. Leporati): *Training and inference in relational domains*.

- Jun 2010 - **Visiting PhD Student**, *Queen Mary University of London UK*, reference: Dr. T. Roelleke, Aug 2010 project: *Probabilistic Relational Models with Relational Uncertainty*.
- 2005 - 2006 **Research assistant**, *University of Milano-Bicocca*, Dept. of Biotechnologies, research project: *Classification and clustering on unbalanced dataset*.

## Teaching Activity

### Courses

- 2016 - present **Data Analytics**, *MD in Computer Science*, Lecture.
- 2016 - present **Machine Learning**, *MD in Computer Science*, Exer.
- 2018 - present **Social Media Analytics**, *MD in Data Science*, Lecture .
- 2012 - present **Probabilistic Decision Models**, *MD in Computer Science*, Exer.
- 2019 - present **Computer Architecture**, *MD in Data Science*, Lecture.
- 2005 - 2014 **Operation Research** , *BD in Computer Science*, Exer + Lab.
- 2008 - 2013 **Computational Methods**, *BD in Computer Science*, Exer.
- 2010 - 2011 **Decision Support Systems**, *MD in Computer Science*, Exer.
- 2008 - 2010 **Statistics**, *BD in Computer Biotechnology*, Exer.
- 2008 - 2010 **Computational Methods**, *BD in Computer Science*, Lab.
- 2007 - 2009 **Advanced Computational Techniques**, *MD in Computer Science*, Lab.
- 2007 - 2008 **Models and Data Analysis**, *MD in Computer Science*, Lab.
- 2007 - 2008 **Numerical Methods for Bioinformatics**, *MD in Computer Science*, Exer.
- 2005 - 2006 **Decision Models for e-Commerce**, *BD in Computer Science*, Exer.

### Masters at the University of Milano-Bicocca

- 2018 **Data Analytics**, *Master in ICT Management*.
- 2018 **Data Analytics**, *Master in ICT Management*.
- 2018 **Decision Support Systems and Machine Learning**, *Master M.I.T.O.*.

### Thesis Advisor

- 01/01/2018 - **Advisor** of the **PhD** student Silvia Terragni (Computer Science), thesis entitled "Deep Learning for Natural Language Processing".  
present
- 01/01/2014 - **Advisor** of the **PhD** student Flavio Massimo Cecchini (Computer Science), thesis entitled "Graph-based clustering algorithms for Word Sense Induction".  
31/12/2016
- 01/01/2014 - **Advisor** of the **PhD** student Pikakshi Manchanda (Computer Science), thesis entitled "Towards Adaptation of Named Entity Recognition and Linking Frameworks".  
31/12/2016
- 01/01/2012 - **Co-Advisor** of the **PhD** student Federico Alberto Pozzi (Computer Science), thesis entitled "Probabilistic Relational Models for Sentiment Analysis in Social Networks".  
31/12/2014
- 01/01/2015 - **Co-Advisor** of the **PhD** student Debora Nozza (Computer Science), thesis entitled "Deep Learning for Natural Language Processing".  
31/12/2017
- 2005 - to **70+** Bachelor Theses e **50+** Master Thesis in Computer Science.  
present

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## European and National Research Projects

- 2017 - 2020 **SIMPSS** - Intelligent System for Monitoring and Predicting the Structural Health of Buildings and Infrastructures and Planning their Maintenance (Regional), *Principal Investigator*.
- 2017 - 2020 **SIDERA-B** - Integrated System for Home Rehabilitation (Regional), *Participant*.
- 2016 - 2019 **Home of IoT** - The Home of Internet of Things (Regional), *Participant*.
- 2016 - 2019 **SMARTCAL** - Smart Tourism in Calabria (National), *WP Leader*.
- 2011 - 2015 **eJRM** - Electronic Justice Relationship Management (National), *WP Leader*.
- 2008 - 2011 **JUMAS** - JUDicial MAnagement by digital libraries Semantics (European), *WP Leader*.
- 2008 - 2010 **Optimization of stochastic dynamic systems for finance** (National), *Participant*.
- 2004 - 2007 **DELOS** - DiscovRery and Lead Optimisation System: an integrated system of programs for virtual molecular libraries and rational drug design (National), *Participant*.
- 2004 - 2006 **PROBO** - Innovative Communication Modes, PROActive Agents for Research of Business Opportunities on the Web (National), *Participant*.
- 2003 - 2006 **e-Relations Hub** - Multimedia content management and CRM Customer Relationship Management (National), *Participant*.

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## Industrial Research Projects

- 2020 **Life Based Value**, research project: *Topic Extraction and Emotion Recognition from natural language text*.
- Life Based Value**, research project: *Discovery emotions and competences in natural language text*.
- 2018 **JOT Internet Media**, research project: *Keyword Extraction and Web Site Classification*.
- 2017 **Radix Group Limited**, research project: *Brexit: Social Media Analytics*.
- 2016 **Cegeka S.p.A**, research project: *Machine Learning for formal validation*.
- Clinical Insights Ltd**, research project: *Analysis of pharmaceutical marketing data*.
- Brain Force s.p.a.**, research project: *Machine Learning for automatic rule induction of client instruction for Nielsen S.p.a.*
- 2015 **Cefriel s.r.l.**, research project: *Proactive: Classification and Clustering models*.
- Sharper Analytics s.r.l.**, research project: *Supervised and Semi-supervised learning for sentiment mining*.
- Brain Force s.p.a.**, research project: *Machine learning methodologies for text analytics of product data*.
- 2014 **Sharper Analytics s.r.l.**, research project: *Natural Language Processing for sentiment mining: part-of-speech, syntax and topic-oriented features*.
- Brain Force s.p.a.**, research project: *Computational models for global-local coding*.
- 2013 **Sharper Analytics s.r.l.**, research project: *Computational models for analysing semi-structured text: news summarization and named-entity recognition*.
- 2011 **Consorzio Milano Ricerche**, research project: *Development of computational models and algorithm design for data analysis*.
- 2009 **Consorzio Milano Ricerche**, research project for TxT Solutions: *Algorithms for information retrieval and multimedia summarization*.
- 2008 **Consorzio Milano Ricerche**, research project: *Computational models for Emotion Recognition, Relational Template Filling e Summarization*.

- Consorzio Milano Ricerche**, research project: *Machine Learning for Emotional State Annotation, Template filling for Structured Indexing and Multimedia Summarization*.
- 2007 **Consorzio Milano Ricerche**, research project: *Computational models for Web Mining and Knowledge Discovery*.
- 2006 **Consorzio Milano Ricerche**, research project: *Computational models for Web Mining and Knowledge Discovery*.

## Awards

- 2021 **Best Paper**, *Word Embedding-Based Topic Similarity Measures*, International Conference on Applications of Natural Language to Information Systems, Saarbrücken (Online), June 2021.
- 2019 **Runner up for the Best Paper**, *Unintended Bias in Misogyny Detection*, IEEE/WIC/ACM International Conference on Web Intelligence, Thessaloniki, October 2019.
- 2019 **Best Reviewer** for the journal *Information Processing and Management*.
- 2016 **Best Paper Award**, *Unsupervised Irony Detection: Probabilistic Model with Word Embeddings*, International Conference on Knowledge Discovery and Information Retrieval, Porto, Novembre 2016.
- 2015 **Best Paper Award**, *Leveraging Entity Linking to Enhance Entity Recognition in Microblogs*, International Conference on Knowledge Discovery and Information Retrieval, Lisbona, Novembre 2015.
- 2009 **Best Paper Award**, *Semantics and Machine Learning for Building the Next Generation of Judicial Court Management Systems*, International Conference on Knowledge Management and Information Sharing, Valencia, Novembre 2009.

## Technological Transfer

- 2017 **OAKS s.r.l.**, founding partner of the Innovative Start-Up.
- 2012 **Sharper Analytics s.r.l.**, founding partner of the academic Spin-Off.

## Institutional Activities

- 2021 **Expert for research project evaluation**, *Icelandic Research Fund*, Icelandic Centre for Research, Research program: Decision Model Learning.
- 2020 **Expert for research project evaluation**, *Executive Agency for Higher Education, Research, Development and Innovation Funding*, Romanian Ministry of National Education, Research program: Fundamental and Frontier Research Exploratory Research Projects.
- 2020 **Expert for research project evaluation**, *Scientific Basic Research*, National Council of Science and Technology, Mexican Government, Research program: Science of Frontier 2019.
- 2012 **Expert for research project evaluation**, *Executive Agency for Higher Education, Research, Development and Innovation Funding*, Romanian Ministry of National Education, Research program: Exploratory Research Projects.

## Editorial Activities

- Editor** Associate Editor for Expert Systems with Applications, Elsevier.
- Editor** Associate Editor for Intelligence Systems with Applications, Elsevier.

Guest Editor for the Special Issue *Hate and Fake: Tackling the Evil in Online Social Media*, Multidisciplinary Digital Publishing Institute (2020).

Guest Editor for the Special Issue *Data Analytics and Optimization*, Elsevier (2018).

Editor (book) for *Sentiment Analysis in Social Networks*, Elsevier (2016).

**Editorial** Information Processing & Management, Elsevier.

**Board** Artificial Intelligence and Applications, Scientific Online Publishing.

**Member** Computer and Information Science, Canadian Center of Science and Education.

**Referee** Information Sciences, Elsevier.

Knowledge and Information Systems, Springer.

ACM Transactions on Internet Technology, ACM.

Applied Soft Computing, Elsevier.

Engineering Applications of Artificial Intelligence, Elsevier.

Expert Systems with Applications, Elsevier.

Artificial Intelligence, Elsevier.

Journal of the Association for Information Science and Technology, Wiley.

Computers and Operational Research, Elsevier.

Information Processing & Management, Elsevier.

Knowledge and Information Systems, Springer.

Decision Support Systems, Elsevier.

Laws - Special Issue on Technology, Social Media and Law, Multidisciplinary Digital Publishing Institute.

Ambient Intelligence and Humanized Computing, Springer.

**Chair** Chair of the Eighth Italian Conference on Computational Linguistics (CLIC-it), 2021.

Organizer of the Shared Task on Multimedia Automatic Misogyny Identification (MAMI), SemEval, 2022.

Organizer of the Shared Task on Profiling Hate Speech Spreaders on Twitter, PANCLEF, 2021.

Publicity Chair for the 19th International Conference of the Italian Association for Artificial Intelligence, 2021.

Chair of the Shared Task on Automatic Misogyny Identification, Evalita, 2020.

Publicity Chair for the 19th International Conference of the Italian Association for Artificial Intelligence, 2020.

Organizer of the Shared Task on Multilingual detection of hate speech against immigrants and women in Twitter (HatEval), Semeval, 2019.

Member of the Local Organizing Committee of the Data Science and Social Research Conference, University of Milano-Bicocca, 2019.

Track Chair SeCredISData - Sentiment, Emotion and Credibility of Information in Social Data, IEEE Data Science and Advanced Analytics Conference, 2018.

Chair of the Shared Task on Automatic Misogyny Identification, Ibereval, 2018.

Chair of the Shared Task on Automatic Misogyny Identification, Evalita, 2018.

Track Chair for Emotion and Sentiment in Intelligent Systems and Big Social Data Analysis, IEEE Data Science and Advanced Analytics Conference, 2016.

- Program** European Chapter of the Association for Computational Linguistics (EACL), 2021.
- Member** Empirical Methods in Natural Language Processing (EMNLP), 2021.
- Committee** Association for Computational Linguistics (ACL), 2020.
- Member** Empirical Methods in Natural Language Processing (EMNLP), 2020.
- 2020 Annual Conference of the Asia-Pacific chapter of the Association for Computational Linguistics (AACL), 2020.
- 4th Workshop on Online Abuse and Harms at EMNLP, 2020
- North American Chapter of the Association for Computational Linguistics (NAACL), 2019.
- 32nd International Conference of the Florida Artificial Intelligence Research Society, 2019.
- 30th ACM Conference on Hypertext and Social Media, 2019.
- Abusive Language Workshop at ACL, 2019.
- Widening Natural Language Processing Workshop at ACL, 2019.
- Int. Conference on Knowledge Discovery and Information Retrieval, 2019.
- IEEE Int. Conference on Tools with Artificial Intelligence, 2018.
- Int. Conference on Knowledge Discovery and Information Retrieval, 2018.
- Int. Conference on Fuzzy Systems and Knowledge Discovery, 2018.
- Int. Conference on Fuzzy Systems and Knowledge Discovery, 2017.
- Int. Conference on Intelligent Networking and Collaborative Systems, 2017.
- Int. Conference on Knowledge Discovery and Information Retrieval, 2017.
- 12th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing, 2017.
- Int. Conference on Fuzzy Systems and Knowledge Discovery, 2016.
- Int. Conference on Intelligent Networking and Collaborative Systems, 2016.
- Int. Conference on Knowledge Discovery and Information Retrieval, 2016.
- Int. Conference on Fuzzy Systems and Knowledge Discovery, 2015.
- Int. Workshop on Emotion and Sentiment in Social and Expressive Media, 2015.
- Int. Conference on Knowledge Discovery and Information Retrieval, 2015.
- IEEE Int. Conference on Open Source Systems and Technologies, 2014.
- Int. Conference on Electronics, Communications and Networks, 2014.
- Int. Conference on Knowledge Discovery and Information Retrieval, 2014.
- Int. Conference on Fuzzy Systems and Knowledge Discovery, 2014.
- Int. Conference on Consumer Electronics, Communications and Networks, 2013.
- Int. Conference on Fuzzy Systems and Knowledge Discovery, 2013.
- Integrated Systems, Design and Technology, 2012.
- Integrated Systems, Design and Technology, 2011.
- Int. Conference on Fuzzy Systems and Knowledge Discovery, 2011.

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## Invited Talks, Seminars and Panels

- [T1] February 2021, invited seminar at Universitat Politècnica de València: *Automatic Misogyny Identification- Languages, Models and Biases.*

- [T2] July 2021, invited seminar at Web Marketing Festival: *Artificial Intelligence vs Hate Speech: An Open Issue*.
- [T3] May 2019, invited talk at Women in Machine Learning and Data Science at Google: *#StopHateAgainstWomen: algorithms for countering online misogyny*.
- [T4] December 2018, invited panelist at the conference Emerging and Disruptive Technologies: At Work and Home.
- [T5] June 2018, invited talk at the Conference Applying Data Science, AI and ML to Industry and Commerce: *Machine Learning and Natural Language Processing For Detecting Fake News, Fake Rumours and Fake Reviews*.
- [T6] June 2017, invited talk at the Summer School on Collective Intelligence and the Big-data revolution: *Deep Learning for Natural Language Processing*.
- [T7] June 2017, invited talk at the workshop Novel Data Sources and Contents for Financial Markets Sentiment Extraction and Applications for Financial Prediction, *Sentiment Analysis in Microblogs*.
- [T8] May 2017, invited seminar at the Universitat Politecnica de Valencia: *Deep Learning and Machine Learning creating knowledge from microblog text*.
- [T9] May 2017, invited seminar at the Pattern Recognition and Human Language Technologies (PRHLT) Research Center, Valencia: *Irony and sarcasm detection expressive signals and machine learning paradigms*.
- [T10] March 2017, invited seminar at the University of Turin: *Making Sense of Microblog Text: a Machine (and Deep) Learning Contribution*.
- [T11] November 2015, invited seminar at the University of Lisbon: *Natural Language Processing for informal and formal text*.
- [T12] July 2015, invited seminar at the University of Salento: *Natural Language Processing for informal and formal text*.
- [T13] June 2012, invited speaker at the Integrated System Design and Technology Conference: *Towards a smooth e-justice: semantic models and machine learning*.
- [T14] July 2012, invited seminar: *Soft Constrained Inference for Conditional Random Fields*, University of Urbana-Champaign, Illinois - USA.
- [T15] June 2011, invited seminar: *The next generation of court management systems*, Court of Monza and Court of Naples.
- [T16] April 2011, invited seminar: *Semantics e Knowledge Management for the trial of the future*, PhD School in Judicial Sciences, University of Milano-Bicocca.
- [T17] October 2010, invited seminar: *Discovering the gene-drug relationships for the pharmacology of cancer*, Brunel University, UK.
- [T18] July 2009, invited seminar: *Emotion Recognition Methods For The Judicial Domain*, Fondazione Bruno Kessler, Trento.
- [T19] June 2008, invited seminar: *Probabilistic Classification and Clustering using Relational Models*, Queen Mary University of London.

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## Conference talks (45)

- [A1] Online Talk, July 2020 - NLDB Conference, On the generalization of figurative language detection: the case of irony and sarcasm.

- [A2] Online Talk, September 2020 - PAN at CLEF, Profiling fake news spreaders: stylometry, personality, emotions and embeddings.
- [A3] Online Talk, May 2020 - Workshop on Resources and Techniques for User and author Profiling in abusive language, Profiling Italian Misogynist: An Empirical Study.
- [A4] Milan, February 2019 - Conference on Data Science and Social Research Conference, Automatic Misogyny Identification in Online Social Media.
- [A5] Turin, December 2018 - Sixth Evaluation Campaign of Natural Language Processing and Speech Tools for Italian (EVALITA), Overview of the Evalita 2018 Task on Automatic Misogyny Identification (AMI).
- [A6] Paris, June 2018 - 23rd International Conference on Natural Language & Information Systems, Automatic Identification and Classification of Misogynistic Language on Twitter.
- [A7] Valencia, April 2017 - 15th Conference of the European Chapter of the Association for Computational Linguistics, A Multi-View Sentiment Corpus.
- [A8] Valencia, April 2017 - 15th Conference of the European Chapter of the Association for Computational Linguistics, TWINE: A real-time system for TWEET analysis via INFORMATION Extraction (demo).
- [A9] San José, November 2016 - 28th IEEE International Conference on Tools with Artificial Intelligence, Deep Learning and Ensemble Methods for Domain Adaptation.
- [A10] Porto, November 2016 - Int. Conference on Knowledge Discovery and Information Retrieval, Unsupervised Irony Detection: A Probabilistic Model with Word Embeddings.
- [A11] Trieste, September 2016 - 46th Annual Conference of the Italian Operations Research Society, Named Entity Recognition: Resource Constrained Maximum Path.
- [A12] Montreal, April 2016 - 6th Workshop on Making Sense of Microposts (#Microposts2016), UniMiB: Entity Linking in Tweets using Jaro-Winkler Distance, Popularity and Coherence.
- [A13] Lisbon, November 2015 - Int. Conference on Knowledge Discovery and Information Retrieval, Word Sense Discrimination on Tweets: a Graph-based Approach.
- [A14] Lisbon, November 2015 - Int. Conference on Knowledge Discovery and Information Retrieval, Overlapping Kernel-Based Community Detection with Node Attributes.
- [A15] Paris, October 2015 - IEEE Conference on Data Science and Advanced Analytics. Detecting Irony and Sarcasm in Microblogs: The Role of Expressive Signals and Ensemble Classifiers.
- [A16] Pisa 2015 - 45th Annual Conference of the Italian Operations Research Society, A relational clustering approach for community detection in social networks.
- [A17] Rome, November 2014 - Int. Conference on Knowledge Management and Information Sharing, eMediation: Towards Smart Online Dispute Resolution.
- [A18] Birmingham, April 2014 - 11th Int. Conference on Applied Mathematical Optimization and Modelling, Community Detection in Social Networks.
- [A19] Bologna, December 2013 - 26th Int. Conference on Legal Knowledge and Information Systems, Ontology-driven data acquisition: intelligent support to ODR systems.
- [A20] Rome, July 2013 - 26th European Conference on Operational Research, Fermat-Weber generalizations for predicting drug sensitivity in tumour cells.
- [A21] Rome, July 2013 - 26th European Conference on Operational Research, Relaxing inference through constraint driven optimization.
- [A22] Samos, March 2013 - 4th Int. Conference on Intelligent Text Processing and Computational Linguistics, Named Entities in Judicial Transcriptions: Extended Conditional Random Fields

- [A23] Paderborn, March 2012 - Int. Conference on Applied Mathematical Optimization and Modelling, Constrained Conditional Random Fields for Semantic Role Labelling.
- [A24] Paderborn, March 2012 - Int. Conference on Applied Mathematical Optimization and Modelling, A p-median clustering approach for the pharmacology of cancer.
- [A25] Vietri sul Mare 2012 - 43rd Annual Conference of the Italian Operations Research Society, Relaxing Inference In Constrained Conditional Random Fields.
- [A26] Mallorca, June 2012 - Conference on Integrated System Design and Technology, Towards a smooth e-justice: semantic models and machine learning.
- [A27] Catania, July 2012 - 15th Int. Conference on Information Processing and Management of Uncertainty, Discovering Gene-Drug Relationships For The Pharmacology Of Cancer
- [A28] Brescia, September 2011 - 42nd Annual Conference of the Italian Operations Research Society, Discovering the Gene-Drug Relationships for the Pharmacology of Cancer: A p-Median Approach.
- [A29] Brescia, September 2011 - 42nd Annual Conference of the Italian Operations Research Society, Constrained Conditional Random Fields for Semantic Role Labelling.
- [A30] London, June 2011 - Advanced Information Systems Engineering Workshops - CAiSE 2011, Improving the Effectiveness of Multimedia Summarization of Judicial Debates Through Ontological Query Expansion.
- [A31] Valencia, October 2010 - Int. Conference on Knowledge Management and Information Sharing, Semantics and Machine Learning for Building the Next Generation of Judicial Court Management Systems.
- [A32] Berlin, July 2010 - 10th Industrial Conference on Data Mining, Multimedia Summarization in Law Courts: A Clustering-based Environment for Browsing and Consulting Judicial Folders.
- [A33] Dortmund, June 2010: 13th Int. Conference on Information Processing and Management of Uncertainty, Web page classification: A probabilistic model with relational uncertainty.
- [A34] Reggio Calabria, September 2010 - 41st Annual Conference of the Italian Operations Research Society, SVM for Emotion Recognition in Judicial Proceedings.
- [A35] Reggio Calabria, September 2010 - 41st Annual Conference of the Italian Operations Research Society, Information extraction through constrained inference in Conditional Random Fields.
- [A36] Leipzig, July 2009 - 6th Int. Conference on Machine Learning and Data Mining, Audio-based Emotion recognition in judicial domain: a multilayer SVM approach.
- [A37] Skopje, September 2009 - 2nd Int. Conference on ICT Solutions for Justice, Multimedia Summarization in Law Courts: An Environment for Browsing and Consulting Judicial Folders.
- [A38] Milan, September 2009 - IEEE WI-IAT Int. Workshop on Web Information Retrieval Support Systems, Probabilistic relational models with relational uncertainty: an early study in web page classification.
- [A39] Siena, September 2009 - 40th Annual Conference of the Italian Operations Research Society, Discovering Relationships Among Human Cancer, Gene Expression Profile And Drug Responses: A Relational Clustering Approach.
- [A40] Thessaloniki, October 2008 - 1st Int. Conference on ICT Solutions for Justice, Audio-based Emotion Recognition for Advanced Automatic Retrieval in Judicial Domain.

- [A41] Ischia, September 2008 - 39th Annual Conference of the Italian Operations Research Society, Support Vector Machines For Automatic Emotion Recognition In Speech.
- [A42] Genoa, September 2007. 38th Annual Conference of the Italian Operations Research Society, Relational K-means for gene expression profiles and drug activity patterns analysis.
- [A43] Milan, October 2007 - SysBioHealth Symposium, Relational Clustering for Gene Expression Profiles and Drug Activity Pattern Analysis.
- [A44] Cesena, September 2006 - 37th Annual Conference of the Italian Operations Research Society, A knowledge discovery system for web document retrieval.
- [A45] Milan, June 2006 - 7th Int. Conference on Flexible Query Answering Systems, A Hierarchical Document Clustering Environment Based on the Induced Bisecting k-Means.

## Publications

### Journal Publications (19)

- [J1] Nozza, D., Manchanda, P., Fersini, E., Palmonari, M., Messina, E. LearningToAdapt with word embeddings: Domain adaptation of Named Entity Recognition systems. *Information Processing & Management*, 58(3), 2021
- [J2] A De Maio, E Fersini, E Messina, F Santoro, A Violi. Exploiting social data for tourism management: the SMARTCAL project. *Quality & Quantity*, 1-13, 2020.
- [J3] D. Nozza, E. Fersini, E. Messina. CAGE: Constrained deep Attributed Graph Embedding. *Information Sciences*, 2020
- [J4] S. Terragni, E. Fersini, E. Messina. Constrained Relational Topic Models. *Information Sciences*, 2020
- [J5] S. Corchs, E. Fersini, F. Gasparini. Ensemble learning on visual and textual data for social image emotion classification. *International Journal of Machine Learning and Cybernetics*, 2019.
- [J6] F.M. Cecchini, M. Riedl, E. Fersini, C. Biemann. A Comparison of Graph-based Word Sense Induction Clustering Algorithms in a Pseudoword Evaluation Framework. *Language Resources and Evaluation*, 2018.
- [J7] E. Fersini, F.A. Pozzi, E. Messina. Approval Network: A New Modeling Approach for Sentiment Analysis in Social Networks. *World Wide Web*, 2017.
- [J8] E. Fersini, E. Messina, F.A. Pozzi. Earthquake Management: A Decision Support System Based On Natural Language Processing. *Journal of Ambient Intelligence and Humanized Computing*, 2017.
- [J9] E. Fersini, E. Messina, F.A. Pozzi. Expressive signals in social media languages to improve polarity detection. In *Information Processing and Management*, Vol. 52, no.1, 2016.
- [J10] S. El Jelali, E. Fersini, E. Messina. Legal Retrieval as Support to eMediation: Matching Disputant's Case and Court Decisions. *Artificial Intelligence and Law*, Vol. 23, no. 1, pp. 1-22, 2015.
- [J11] E. Fersini, E. Messina, F. Archetti. A p-Median approach for predicting drug responses in tumour cells. *BMC Bioinformatics*, Vol. 15, no. 1, art. nr. 353, 2014.
- [J12] E. Fersini, E. Messina, F.A. Pozzi. Sentiment Analysis: Bayesian Ensemble Learning. *Decision Support Systems*, Vol. 68, pp. 26-38, 2014.
- [J13] E. Fersini, E. Messina, G. Felici, D. Roth. Soft-constrained inference for named entity recognition, *Information Processing and Management*, Vol. 50, no. 5, pp. 807-819, 2014.

- [J14] E. Fersini, E. Messina. Web page classification through probabilistic relational models, in *International Journal of Pattern Recognition and Artificial Intelligence*, Vol. 27, no. 4, art. nr. 13500132013.
- [J15] E. Fersini, F. Sartori. Semantic storyboard of judicial debates: a novel multimedia summarization environment, in *Program: electronic library and information systems*, Vol. 4, no. 2, pp.199-219, 2012.
- [J16] E. Fersini, E. Messina, F. Archetti. Emotional States In Judicial Courtrooms: An Experimental Investigation, in *Speech Communication*, Vol. 54, no. 1, pp. 11-22, 2012.
- [J17] E. Fersini, E. Messina, F. Archetti. A probabilistic relational approach for web document clustering, *Information Processing and Management*, Vol. 46, no. 2, pp. 117-130, 2010.
- [J18] E. Fersini, E. Messina, F. Archetti, C. Manfredotti. Combining Gene Expression Profiles and Drug Activity Patterns Analysis: A Relational Clustering Approach, *Journal of Mathematical Modelling and Algorithms*, Vol. 9, no. 3, pp. 275-289, 2010.
- [J19] E. Fersini, E. Messina, F. Archetti. Enhancing web page classification through image-block importance analysis, *Information Processing and Management*, Vol. 44, no 4, pp.1431-1447, 2008.

### Book Chapters (5)

- [L1] A. De Maio, D. Ferone, E. Fersini, E. Messina, F. Santoro, A. Violi. Smart Tourism System in Calabria. *Studies in Classification, Data Analysis and Knowledge Organization*, Springer, 2020
- [L2] E. Fersini. Sentiment Analysis in Social Networks: A Machine Learning Perspective. *Sentiment Analysis in Social Networks*, Elsevier, 2016.
- [L3] F. A. Pozzi, E. Fersini, E. Messina. Sentiment Analysis in Microblogs. *Handbook of Sentiment Analysis in Finance*, Wiley, 2016.
- [L4] E. Fersini, E. Messina, F. Archetti, M. Cislighi, *Semantics and Machine Learning: A New Generation Of Court Management Systems*. In *Communications in Computer and Information Science*, Springer, 2013.
- [L5] E. Fersini, F. Archetti, E. Messina. Towards a smooth e-justice: semantic models and machine learning. In *Integration of Practice-Oriented Knowledge Technology: Trends and Prospective*, Springer, 2012.

### Conference Proceedings (49)

- [C1] Bianchi, F., Terragni, S., Hovy, D., Nozza, D., Fersini, E. Cross-lingual Contextualized Topic Models with Zero-shot Learning. In *Proceedings of the 16th Conference of the European Chapter of the Association for Computational Linguistics: Main Volume* (pp. 1676-1683), 2021.
- [C2] Terragni, S., Fersini, E., Galuzzi, B. G., Tropeano, P., Candelieri, A. OCTIS: Comparing and Optimizing Topic models is Simple!. In *Proceedings of the 16th Conference of the European Chapter of the Association for Computational Linguistics: System Demonstrations* (pp. 263-270), 2021
- [C3] Rangel, F., Sarracón, G. L. D. L. P., Chulvi, B., Fersini, E., Rosso, P. Profiling Hate Speech Spreaders on Twitter Task at PAN 2021. In *CLEF*, 2021.

- [C4] Famiglini, L., Fersini, E., Rosso, P. (2021, June). On the Generalization of Figurative Language Detection: The Case of Irony and Sarcasm. In International Conference on Applications of Natural Language to Information Systems (pp. 178-186), 2021
- [C5] Terragni, S., Fersini, E., Messina, E. (2021, June). Word Embedding-Based Topic Similarity Measures. In International Conference on Applications of Natural Language to Information Systems (pp. 33-45), 2021
- [C6] Fersini, E., Nozza, D., Rosso, P. AMI@ EVALITA2020: Automatic Misogyny Identification. In Proc. of the 6th Evaluation Campaign of Natural Language Processing and Speech tools for Italian (Evalita), 2020.
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