Andrea Passerini

Curriculum Vitae

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Academic Positions

2015– **Associate Professor in area 01/B1**, Department of Information Engineering and Computer Science, University of Trento.

2018–2023 **Adjunct Professor** at Aalborg University (from 01/06/2018 to 31/05/2023).

2009–2015 **Assistant Professor (Ricercatore a Tempo Determinato - Tipo A) SSD INF/01**, Department of Information Engineering and Computer Science, University of Trento.

2008–2009 **Visiting Professor**, Department of Information Engineering and Computer Science, University of Trento.

2004–2008 **Research Associate (assegnista di ricerca)**, Dipartimento di Sistemi e Informatica, University of Florence.

Education and Qualifications

2020, 13 Nov **Italian national scientific qualification (ASN) for full professor in area 09/H1** (2018 call).

2018, 28 Mar **Italian national scientific qualification (ASN) for full professor in area 01/B1** (2016 call).

2014, 29 Jan **Italian national scientific qualification (ASN) for associate professor in area 01/B1** (2012 call).

2013, 3 Dic **Italian national scientific qualification (ASN) for associate professor in area 09/H1** (2012 call).

2004, 21 May **PhD in Computer Engineering**, DSI - University of Florence. Dissertation title: "*Kernel Methods, Multiclass Classification and Applications to Computational Molecular Biology*".

2000, 6 Nov **Master of Science in Computer Engineering** (110/110 cum laude), University of Florence. Dissertation title: "*Tecniche di apprendimento automatico applicate al recupero di informazione da Internet*".

Research projects

2023–2027 *TANGO - It takes two to tango: a synergistic approach to human-machine decision making*
Research and Innovation Action funded by the European Commission
Role: Project Coordinator.

2023–2026 *Future Artificial Intelligence Research (FAIR)*
PNRR project funded by the NextGenerationEU
Role: Task leader.

2020–2023 *TAILOR: Foundations of Trustworthy AI - Integrating Reasoning, Learning and Optimization*

Research and Innovation Action funded by the European Commission
Role: Principal Investigator.

2019–2022 *WeNet - The Internet of US*
FET-PROACTIVE grant from the European Commission
Role: Co-Investigator.

2018–2019 *Sistema di OCR per l'estrazione di dati da fotografie di documenti d'identità*
Industrial Project funded by YourVoice SpA
Role: Principal Investigator.

2015–2017 *The Trentino Knowledge Base*
CARITRO Project financed by the Caritro foundation
Role: Scientific Coordinator.

2014–2015 *Protein Function Prediction by Statistical Relational Learning*
Google Faculty Research Award
Role: Principal Investigator.

2014 *Ribomaps: learning translational regulation mechanisms by computational approaches*
NVIDIA's Academic Hardware grant
Role: Principal Investigator.

2011–2013 *Apprendimento Statistico Relazionale e Reactive Search Optimization*
PRIN grant from the Italian Ministry of Education, Universities and Research
Role: Co-Investigator.

2008–2012 *A-CUBE: Ambient Aware Assistance*
"Grand Projects" grant from the Autonomous Province of Trento
Role: Co-Investigator.

2004–2006 *April II: Applications of Probabilistic Inductive Logic Programming*
STREP grant from the European Commission
Role: Researcher.

2002–2003 *Strumenti basati su apprendimento automatico per la genomica strutturale e funzionale*
PRIN grant from the Italian Ministry of Education, Universities and Research
Role: Researcher.

Main research activities

My research activity is primarily in the areas of machine learning and AI, especially statistical relational learning and neuro-symbolic integration, interactive machine learning, explainable AI, learning and optimization and learning with constraints, with applications to recommender systems and bioinformatics. I am coordinator of the "Deep and Structured Machine Learning" research program (`http://www.disi.unitn.it/research/programs/dsml`) and director of the "Structured Machine Learning" group (`http://sml.disi.unitn.it/`). I co-authored over 150 refereed papers, including more than fifty journal publications and four invited book chapters. My h-index is 31 (Google Scholar, January 2024, `https://scholar.google.it/citations?hl=it&user=IIXgkLoAAAAJ&view_op=list_works`).

Main research collaborations (outside host Departments)

2022– *Explainability in Graph Neural Networks* [0]
Pietro Liò, University of Cambridge, UK.

2020– *Continual Learning* [0, 0, 0, 0]
Simone Calderara, University of Modena e Reggio Emilia.

2018– *Machine and Human Reasoning* [0, 0, 0, 0]
Katya Tentori, CIMeC, University of Trento.

2017– *Hybrid Intelligence, Network Analysis* [**mach2023**, 0, 0, 0]
Bruno Lepri, FBK.

2015– *Constructive recommendations* [0, 0]
Paolo Viappiani, Lip6, CNRS, France.

2015– *Learning and inference in hybrid domains* [0, 0, 0]
Guy Van den Broeck, UCLA, USA.
Vaishak Belle, University of Edinburgh, UK.

2010– *Discovering translational regulation mechanisms* [0, 0, 0, 0]
Alessandro Quattrone, Centre for Integrative Biology (CIBIO), University of Trento.
Gabriella Viero, Istituto di Biofisica - CNR Trento.

2006– *Learning in relational domains* [0, 0, 0, 0, 0, 0]
Manfred Jaeger, Institut for Datalogi, Aalborg Universitet, Denmark.

2004– *Hybrid approaches combining statistical and relational learning* [0, 0, 0, 0, 0, 0, 0]
Luc De Raedt, Declarative Languages and Artificial Intelligence, Katholieke Universiteit Leuven, Belgium.

2004–2012 *Learning algorithms for protein feature prediction* [0, 0, 0, 0]
Burkhard Rost, Bioinformatic and Computational Biology Departement, Technische Universitaet Muenchen, Germany.

2005–2007 *Learning algorithms for metal binding site prediction* [0, 0]
Ivano Bertini, Magnetic Resonance Center (CERM), University of Florence.

2005–2006 *Declarative kernels* [0]
Stephen Muggleton, Computational Bioinformatics Laboratory, Imperial College London, UK.

Awards

- **Best working paper award** at the *Hybrid Human Artificial Intelligence (HHAI)*, 2023.
- **Best blu sky ideas paper** at the *AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, 2021.
- **Best paper award** at the *Conference on Uncertainty in Artificial Intelligence (UAI)*, Amsterdam, 2015.
- **Google Faculty Research Award** on *Protein Function Prediction by Statistical Relational Learning*, 2014.
- **Best paper award** at the *Metaheuristics International Conference (MIC 2013)*, Singapore, 2013.

Invited Talks (recent)

- Plenary talk: *Interactive Machine Learning*, at the International Symposium on Methodologies for Intelligent Systems (ISMIS 2022), Cosenza, Italy, 2022.
- Plenary talk: *Constructive Preference Elicitation: from Product Bundling to Algorithmic Recourse* at the 13th Multidisciplinary Workshop on Advances in Preference Handling (M-PREF 2022), Workshop at IJCAI-ECAI, Vienna, Austria, 2022.
- Plenary talk: *Constructive Preference Elicitation* at the 12th Multidisciplinary Workshop on Advances in Preference Handling (M-PREF 2020), Workshop at ECAI, Santiago de Compostela, Spain, 2020.

- Plenary talk: *Constructive Machine Learning*, at the Workshop on "Integrative Machine Learning", Satellite Workshop at the 6th International Conference on Machine Learning, Optimization & Data Science, Certosa di Pontignano, Siena, Italy, 2020
- Seminar talk: *Learning and Reasoning in Hybrid Domains* at Spring AI Seminars, FBK, Italy, 2020.
- Workshop talk: *Interactive Machine Learning* at Spring workshop on Mining and Learning, Titisee, Germany, 2020.
- Plenary talk: *On the combination of knowledge and learning*, at the 12th International Conference on Knowledge Science, Engineering and Management (KSEM 2019), Athens, Greece, 2019.
- Workshop talk: *Constructive Recommender Systems* at the Next Generation Recommenders Workshop, Mountain View, USA, 2019.
- Lab seminar: *Constructive Machine Learning* at Dipartimento di Informatica - Scienza e Ingegneria, University of Bologna, Italy, 2019.
- Plenary talk: *Constructive Preference Elicitation* at the Fourth workshop on From Multiple Criteria Decision Aid to Preference Learning (DA2PL), Poznan, Poland, 2018.
- Plenary talk: *Interactive Machine Learning* at the Seventh Italian Workshop on Machine Learning and Data Mining, Trento, 2018.
- Seminar talk: *Pyconstruct: a library for declarative, constructive machine learning* at Dagstuhl Seminar on Automating Data Science, Schloss Dagsthul, Germany, 2018.
- Workshop talk: *Coactive Learning for Constructive Recommendation* at Spring workshop on Mining and Learning, Titisee, Germany, 2018.
- Summer school talk: *Inference and Learning with Bayesian Networks* at Summer School of Information Engineering, Bressanone, Italy, 2017.
- Workshop talk: *Constructive Preference Elicitation* at Spring workshop on Mining and Learning, Ostend, Belgium, 2017.
- Plenary talk: *Learning Modulo Theory - Reasoning and Learning in Hybrid Domains* at the Eleventh International Workshop on Neural-Symbolic Learning and Reasoning (NeSy'16), New York City, USA, 2016.
- Lab seminar: *Learning modulo theories* at Decision, Intelligent Systems and Operational Research Department, LIP6, Paris, 2016.
- Workshop talk: *Learning and Reasoning in Hybrid Domains* at Spring workshop on Mining and Learning, Dinant, Belgium, 2015.
- Plenary talk: *Introduction to Machine Learning* at CP-AI-OR, Cork, Ireland, 2014.
- Seminar talk: *Structured learning modulo theories* at Dagstuhl Seminar on Constraints, Optimization and Data, Schloss Dagsthul, Germany, 2014.
- Workshop talk: *Learning modulo theories* at Spring workshop on Mining and Learning, Odensee, Belgium, 2014.
- Lab seminar: *Learning to Solve Unknown Constraint Satisfaction Problems* at Computational Aspects of Mining and Learning Group, Fraunhofer IAIS, Bonn, Germany, 2012.
- Workshop talk: *Learning to Solve Unknown Constraint Satisfaction Problems* at First Italian Workshop on Machine Learning and Data Mining, Rome, 2012.
- Workshop talk: *Learning to solve unknown constraint satisfaction problems* at Spring workshop on Mining and Learning, Bad Neuenahr, Germany, 2012.
- Lab seminar: *Towards combining statistical and symbolic learning: a kernel approach* at Department of Mathematics and Computer Science, Università degli Studi di Palermo, Italy, 2011.

- Symposium talk: *Frankenstein Junior: a Relational Learning Approach toward Protein Engineering* at symposium on Machine Learning in Life Sciences, Leuven, Belgium, 2011.
- Lab seminar: *Predicting structured-output from protein sequence* at Machine learning group, Université Libre de Bruxelles, Belgium, 2011.
- Workshop talk: *On combining learning and heuristic optimization* at Spring workshop on Mining and Learning, Prum, Germany, 2011.
- Lab seminar: *Predicting structural and functional sites in proteins by searching for maximum-weight cliques* at Databases and Theoretical Computer Science Research Group, Hasselt University, Belgium, 2010.
- Plenary talk: *Predicting structural and functional sites in proteins* at 5th Bioptrain Workshop, Florence, 2009.

Teaching activities

2021–	Teacher of *Advanced Topics in Machine Learning and Optimization* (6 CFU), Master of Science in Artificial Intelligent Systems, University of Trento (with Stefano Teso).
2020–	Teacher of *Machine Learning* (12 CFU), Master of Science in Artificial Intelligent Systems, University of Trento (with Farid Melgani and Elisa Ricci).
2019–	Teacher of *Scientific Programming* (6 CFU), Master of Science in Quantitative and Computational Biology, University of Trento.
2008–	Teacher of *Machine Learning* (6 CFU), Master of Science in Computer Science, University of Trento.
2019–2020	Teacher of *Informatica* (6 CFU), Bachelor of Science in Biomolecular Sciences and Technology, University of Trento.
2009–2019	Teacher of *Bioinformatics*, Doctoral Course in Biomolecular Sciences, University of Trento.
2008–2019	Teacher of *Informatica* (9 CFU), Bachelor of Science in Biomolecular Sciences and Technology, University of Trento.
2009–2013	Teacher of *Statistical Relational Learning* (3 CFU), Doctoral Course in Information and Communication Technology, University of Trento.
2008–2009	Teacher of *Complex Systems* (3 CFU), Doctoral Course in Information and Communication Technology, University of Trento.
2006–2008	Teacher of *Conoscenze informatiche e relazionali* (4 CFU), Bachelor of Science in Scienze dell'Ingegneria Edile, University of Florence.

Supervised PhD students

2023–	Marco Vincenzo De Luca, *AI Coaching for Surgical Teams.*
2023–	Erich Robbi, *Hybrid Surgical Decision Making.*
2023–	Steve Azzolin *Neuro-Symbolic GNNs.*
2023–	Samuele Bortolotti (co-advisor), *Interpretable Neural Networks.*
2023–	Cesare Barbera, *Hybrid Human-Machine learning and Decision Making.*

2022– Debodeep Banerjee, *Learning to Guide Humans.*

2022– Francesco Ferrini, *Multi-Relational Learning.*

2022– Marco Bronzini, *Machine Learning for Sustainable Finance.*

2021– Emanuele Marconato, *Concept-Based Models.*

2021– Giovanni De Toni (co-advisor), *Algorithmic recourse.*

2019–2023 Gianluca Apriceno (co-advisor), *Neural Event Calculus.*

2019–2023 Antonio Longa (co-advisor), *Computational Social Science.*

2019–2023 Alessia Bertugli, *Human-like Machine Learning.*

2017–2021 Luca Erculiani, *Human-like Machine Learning.*

2017–2021 Giovanni Pellegrini, *Statistical Relational Learning approaches for Recommender Systems.*

2016–2020 Paolo Morettin, *Learning and Inference with Constraints.*

2015–2019 Paolo Dragone, *Coactive Learning Algorithms for Constructive Preference Elicitation.*

2016–2017 Seyed Mostafa Kia, *Brain Decoding for Brain Mapping.*

2014–2017 Gianluca Corrado, *Machine Learning for Investigating Post-Transcriptional Regulation of Gene Expression.*

2012–2015 Daniil Mirylenka, *Academic Search Refinement and Ontology Learning.*

2010–2013 Umut Avci, *Recognizing and Discovering Activities of Daily Living in Smart Environments.*

2010–2013 Stefano Teso, *Statistical Relational Learning for Proteomics: Function, Interactions, Evolution.*

2008–2010 Elisa Cilia, *Statistical and relational learning for understanding enzyme function.*

Co-Chair

- *Hybrid Human-Machine Learning and Decision Making* 2023, workshop at ECMLPKDD 2023. Program Co-Chair with Fabio Casati, Burcu Sayin, Anna Monreale, Roberto Pellungrini, Paula Gürtler.
- *Multidisciplinary Workshop on Advances in Preference Handling (M-PREF)* 2023, workshop at IJCAI 2023. Program Co-Chair with Haris Aziz, Ulrich Junker, Xinhang Lu, Nicholas Mattei.
- *Prestigious Applications of Intelligent Systems (PAIS)* 2022, co-located with IJCAI-ECAI 2022. Program Co-Chair with Thomas Schiex.
- *Hybrid Probabilistic Inference with Algebraic and Logical Constraints*, Tutorial at IJCAI-ECAI 2022. Speaker and organizer, together with Paolo Morettin, Pedro Zuidberg Dos Martires and Samuel Kolb.
- *From Multiple Criteria Decision Aid to Preference Learning* (DA2PL) 2020. General Chair and Program Co-Chair with Vincent Mouseeau.
- *International Conference of the Italian Association for Artificial Intelligence* (AI*IA) 2018. Program Co-Chair with Chiara Ghidini and Bernardo Magnini.
- *Constraint Learning*, tutorial at IJCAI-ECAI 2018. Speaker and organizer, together with Luc De Raedt and Stefano Teso.
- *Constraint Learning*, tutorial at AAAI 2018. Speaker and organizer, together with Luc De Raedt and Stefano Teso.

- *Constructive Machine Learning* (CML) 2016, workshop at NIPS 2016. Program Co-Chair with Fabrizio Costa, Thomas Gaertner and Francois Pachet.
- *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases* (ECML PKDD) 2016. General Co-Chair with Fosca Giannotti and Journal Track Co-Chair with Thomas Gaertner, Mirco Nanni and Celine Robardet.
- *Constructive Machine Learning* (CML) 2015, workshop at ICML 2015. Program Co-Chair with Fabrizio Costa, Roman Garnett and Thomas Gaertner.
- *Intelligent Personalization* (IP) 2015, workshop at IJCAI 2015. Program Co-Chair with Dietmar Jannach, Jerome Mengin, Bamshad Mobasher and Paolo Viappiani.
- *Constructive Machine Learning* (CML) 2013, workshop at NIPS 2013. Program Co-Chair with Roman Garnett and Thomas Gaertner.
- *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases* (ECML PKDD) 2013. Workshop Co-Chair with Niels Landwehr.
- *COmbining COnstraint solving with MIning and LEarning* (CoCoMiLe) 2013, workshop at AAAI 2013. Program Co-Chair with Tias Guns, Lars Kotthoff, Barry O'Sullivan.
- *COmbining COnstraint solving with MIning and LEarning* (CoCoMiLe) 2012, workshop at ECAI 2012. Program Co-Chair with Remi Coletta , Tias Guns, Barry O'Sullivan, Guido Tack.
- *Machine Learning and Intelligent Optimization in Bioinformatics* (Maliob) 2009, workshop at LION 2009. Program Chair.
- *Machine Learning and Intelligent Optimization in Bioinformatics* (Maliob) 2008, special session at CIBB 2008. Program Co-Chair with Roberto Battiti, Mauro Brunato.

Editorial activity

- Specialty Chief Editor for *Frontiers in Machine Learning and Artificial Intelligence*, together with Elisa Fromont.
- Action editor for the *Machine Learning Journal*.
- Associate editor for the *Artificial Intelligence Journal*.
- Editor of the Proceedings of *PAIS 2022 - 11th Conference on Prestigious Applications of Artificial Intelligence*, IOS PRESS, 2022. Together with Thomas Schiex.
- Editor of the Proceedings of *AI*IA 2018 – Advances in Artificial Intelligence*, Springer, 2018. Together with Chiara Ghidini, Bernardo Magnini, Paolo Traverso.
- Guest editor of the *ECML PKDD 2016 Journal Track Special Issue of the Data Mining and Knowledge Discovery Journal*, Springer, 2016. Together with Thomas Gärtner, Mirco Nanni, Celine Robardet.
- Guest editor of the *ECML PKDD 2016 Journal Track Special Issue of the Machine Learning Journal*, Springer, 2016. Together with Thomas Gärtner, Mirco Nanni, Celine Robardet.
- Series editor of the Springer book series on *Computational Synthesis and Creative Systems*. Together with Francois Pachet, Pablo Gervas, Mirko Degli Esposti.
- Guest editor of *Combining Constraint solving with Mining and Learning*, Special Issue of the Artificial Intelligence Journal. Together with Tias Guns, Guido Tack.

Reviewing activity

- Area chair:
  - ECMLPKDD 2018–2023
  - IJCAI 2020–2022

  - ECAI 2024

- Program/reviewing committee member:

  - CONLL 2015
  - AAAI 2010,2014,2015,2016,2018,2019,2021
  - ECAI 2012,2014
  - ICML 2009–2014,2018–2023
  - ECML/PKDD 2006,2007,2009–2015,2017–2019
  - IJCAI 2009,2011,2013,2015,2017–2019
  - NIPS/NeurIPS 2008–2009,2012,2013,2017–2023
  - ILP 2010
  - PRIB 2010–2012
  - MLG 2007–2009

- Reviewer for international journals:

  - ACM Transactions on Internet Technology, Artificial Intelligence Journal, Bioinformatics, BMC Bioinformatics, Electronic Letters on Computer Vision and Image Analysis, IEEE Transactions on Evolutionary Computation, IEEE Transactions on Neural Networks, IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Systems, Man and Cybernetics, IEEE Transactions on Knowledge and Data Engineering, Journal of Machine Learning Research, Machine Learning Journal, Neural Networks, Neurocomputing, Pattern Analysis and Applications, Pattern Recognition, Pattern Recognition Letters.

- Research proposal evaluation:

  - European Research Council.
  - Research Foundation Flanders.
  - Swiss National Science Foundation.
  - Netherlands Organisation for Scientific Research.

Other services

2021–	Scientific representative for UNITN in the National AI PhD program (PhD-AI.it).
2019–	President of the Steering Committee of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases.
2017–	DISI Delegate for the Data Science initiative at UNITN.
2017–2022	ICT Representative in the Panel of the Transdisciplinary program in Computational Biology.
2017–2019	Member of the Steering Committee of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases.
2014–2017	President of the Panel of the Transdisciplinary program in Computational Biology.
2012–2018	Responsible for tutoring at DISI.
2012–2018	Member of the executive committee of the DISI ICT Doctoral School.

Publications

Papers in international journals

1. Longa, A., G. Cencetti, S. Lehmann, A. Passerini, and B. Lepri (2024). Generating fine-grained surrogate temporal networks. *Communications Physics* **7**(22).
2. Asnicar, F., A. Thomas, A. Passerini, L. Waldron, and N. Segata (2023). Machine learning for microbiologists. *Nat Rev Microbiol*.
3. Fait, S., S. Pighin, A. Passerini, F. Pavani, and K. Tentori (2023). Sensory and multisensory reasoning: Is Bayesian updating modality-dependent? *Cognition*.
4. Girardini, N. A., S. Centellegher, A. Passerini, I. Bison, F. Giunchiglia, and B. Lepri (2023). Adaptation of Student Behavioural Routines during COVID-19: A Multimodal Approach. *EPJ Data Science* **12**(55).
5. Longa, A., V. Lachi, G. Santin, M. Bianchini, B. Lepri, P. Lio, franco scarselli, and A. Passerini (2023). Graph Neural Networks for Temporal Graphs: State of the Art, Open Challenges, and Opportunities. *Transactions on Machine Learning Research*.
6. Marconato, E., A. Passerini, and S. Teso (2023b). Interpretability Is in the Mind of the Beholder: A Causal Framework for Human-Interpretable Representation Learning. *Entropy* **25**(12).
7. Bontempelli, A., F. Giunchiglia, A. Passerini, and S. Teso (2022a). Human-in-the-loop handling of knowledge drift. *Data Mining and Knowledge Discovery*.
8. Longa, A., G. Cencetti, B. Lepri, and A. Passerini (Nov. 2022). An efficient procedure for mining egocentric temporal motifs. *Data Mining and Knowledge Discovery*.
9. Zhang, W., M. Zeni, A. Passerini, and F. Giunchiglia (2022). Skeptical Learning: An Algorithm and a Platform for Dealing with Mislabeling in Personal Context Recognition. *Algorithms* **15**(4).
10. Campigotto, P., S. Teso, R. Battiti, and A. Passerini (2021). Learning Modulo Theories for constructive preference elicitation. *Artificial Intelligence* **295**, 103454.
11. Giunchiglia, F., L. Erculiani, and A. Passerini (2021). Towards Visual Semantics. *SN COMPUT. SCI.* **2**(446).
12. Nanni, M. et al. (2021). Give more data, awareness and control to individual citizens, and they will help COVID-19 containment. *Ethics and Information Technology*, 1–6.
13. Sayin, B., E. Krivosheev, J. Yang, A. Passerini, and F. Casati (2021). A review and experimental analysis of active learning over crowdsourced data. *Artificial Intelligence Review*.
14. Tentori, K., A. Passerini, B. Timberlake, and S. Pighin (2021). The misunderstanding of vaccine efficacy. *Social Science and Medicine* **289**, 114273.
15. Zhang, W., Q. Shen, S. Teso, B. Lepri, A. Passerini, I. Bison, and F. Giunchiglia (2021). Putting human behavior predictability in context. *EPJ Data Sci.* **10**(1), 42.
16. Roy, S. et al. (2020). Deep learning for classification and localization of COVID-19 markers in point-of-care lung ultrasound. *IEEE Transactions on Medical Imaging*.
17. Zhang, W., A. Passerini, and F. Giunchiglia (June 2020). Dealing with Mislabeling via Interactive Machine Learning. *KI - Künstliche Intelligenz* **34**(2), 271–278.
18. Jaeger, M., M. Lippi, G. Pellegrini, and A. Passerini (Mar. 2019). Counts-of-counts similarity for prediction and search in relational data. *Data Mining and Knowledge Discovery*.
19. Maccari, L. and A. Passerini (2019). A Big Data and machine learning approach for network monitoring and security. *Security and Privacy* **2**(1), e53.
20. Morettin, P., A. Passerini, and R. Sebastiani (2019). Advanced SMT techniques for weighted model integration. *Artificial Intelligence* **275**, 1–27.
21. Teso, S., L. Masera, M. Diligenti, and A. Passerini (2019). Combining Learning and Constraints for Genome-wide Protein Annotation. *BMC-Bioinformatics* **20**(338).

22. Zeni, M., W. Zhang, E. Bignotti, A. Passerini, and F. Giunchiglia (Mar. 2019). Fixing Mislabeling by Human Annotators Leveraging Conflict Resolution and Prior Knowledge. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* **3**(1), 32:1–32:23.
23. Dragone, P., S. Teso, and A. Passerini (2018a). Constructive Preference Elicitation. *Frontiers in Robotics and AI* **4**, 71.
24. Gundogdu, D., A. N. Finnerty, J. Staiano, S. Teso, A. Passerini, F. Pianesi, and B. Lepri (Sept. 2017). Investigating the association between social interactions and personality states dynamics. *R Soc Open Sci* **4**(9), 170194.
25. Kia, S. M., F. Pedregosa, A. Blumenthal, and A. Passerini (2017). Group-level spatio-temporal pattern recovery in MEG decoding using multi-task joint feature learning. *Journal of Neuroscience Methods* **285**, 97–108.
26. Kia, S. M., S. Vega Pons, N. Weisz, and A. Passerini (2017). Interpretability of Multivariate Brain Maps in Linear Brain Decoding: Definition, and Heuristic Quantification in Multivariate Analysis of MEG Time-Locked Effects. *Frontiers in Neuroscience* **10**, 619.
27. Passerini, A., G. Tack, and T. Guns (2017). Introduction to the special issue on Combining Constraint Solving with Mining and Learning. *Artificial Intelligence* **244**. Combining Constraint Solving with Mining and Learning, 1–5.
28. Teso, S., R. Sebastiani, and A. Passerini (2017). Structured learning modulo theories. *Artificial Intelligence* **244**. Combining Constraint Solving with Mining and Learning, 166–187.
29. Corrado, G., T. Tebaldi, F. Costa, P. Frasconi, and A. Passerini (2016). RNAcommender: genome-wide recommendation of RNA-protein interactions. *Bioinformatics*.
30. Viero, G., L. Lunelli, A. Passerini, P. Bianchini, R. J. Gilbert, P. Bernabo', T. Tebaldi, A. Diaspro, C. Pederzolli, and A. Quattrone (2015). Three distinct ribosome assemblies modulated by translation are the building blocks of polysomes. *The Journal of Cell Biology* **208**(5), 581–596. eprint: `http://jcb.rupress.org/content/208/5/581.full.pdf+html`.
31. Avci, U. and A. Passerini (2014). Improving Activity Recognition by Segmental Pattern Mining. *IEEE Transactions on Knowledge and Data Engineering* **26**(4), 889–902.
32. Cilia, E., S. Teso, S. Ammendola, T. Lenaerts, and A. Passerini (2014). Predicting virus mutations through statistical relational learning. *BMC Bioinformatics* **15**(1), 309.
33. Corrado, G., T. Tebaldi, G. Bertamini, F. Costa, A. Quattrone, G. Viero, and A. Passerini (2014). PTRcombiner: mining combinatorial regulation of gene expression from post-transcriptional interaction maps. *BMC Genomics* **15**, 304.
34. Sacca', C., S. Teso, M. Diligenti, and A. Passerini (2014). Improved multi-level protein-protein interaction prediction with semantic-based regularization. *BMC Bioinformatics* **15**, 103.
35. Teso, S. and A. Passerini (2014). Joint Probabilistic-Logical Refinement of Multiple Protein Feature Predictors. *BMC-Bioinformatics* **15:16**.
36. Campigotto, P., A. Passerini, and R. Battiti (2013a). Active learning of Pareto fronts. *IEEE Transactions on Neural Networks and Learning Systems* **25**(3), 506–519.
37. Jaeger, M., M. Lippi, A. Passerini, and P. Frasconi (2013). Type Extension Trees for Feature Construction and Learning in Relational Domains. *Artificial Intelligence Journal* **204**(30–55).
38. Passerini, A., M. Lippi, and P. Frasconi (Jan. 2012). Predicting Metal-Binding Sites from Protein Sequence. *IEEE/ACM Trans. Comput. Biol. Bioinformatics* **9** (1), 203–213.
39. Tebaldi, T., A. Re, G. Viero, I. Pegoretti, A. Passerini, E. Blanzieri, and A. Quattrone (2012). Widespread translational control uncouples transcriptome and translatome profiles in mammalian cells. *BMC Genomics* **13:220**.
40. Cilia, E., N. Landwehr, and A. Passerini (Dec. 2011). Relational Feature Mining with Hierarchical Multitask kFOIL. *Fundamenta Informaticae* **113**(2), 151–177.
41. Lippi, M., M. Jaeger, P. Frasconi, and A. Passerini (2011). Relational information gain. *Machine Learning* **83**, 219–239.

42. Passerini, A., M. Lippi, and P. Frasconi (2011). MetalDetector v2.0: predicting the geometry of metal binding sites from protein sequence. *Nucleic Acids Res* **39**(Web Server issue), W288–92.
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