

## CURRICULUM VITAE

Last Update: Sunday 5<sup>th</sup> September, 2021

### PERSONAL INFORMATION

First Name, Last Name: Luca, Oneto

Email:

URL:

Position: Associate Professor

Affiliation: DIBRIS - University of Genoa

### SHORT BIO

**English** Luca Oneto was born . He received his BSc and MSc in Electronic Engineering at the University of Genoa, Italy respectively in 2008 and 2010. In 2014 he received his PhD from the same university in the School of Sciences and Technologies for Knowledge and Information Retrieval with the thesis “Learning Based On Empirical Data”. In 2017 he obtained the Italian National Scientific Qualification for the role of Associate Professor in Computer Engineering and in 2018 he obtained the one in Computer Science. He worked as Assistant Professor in Computer Engineering at University of Genoa from 2016 to 2019. In 2018 he was co-funder of the spin-off ZenaByte s.r.l. In 2019 he obtained the Italian National Scientific Qualification for the role of Full Professor in Computer Science and Computer Engineering. In 2019 he became Associate Professor in Computer Science at University of Pisa and currently is Associate Professor in Computer Engineering at University of Genoa. He has been involved in several H2020 projects (S2RJU, ICT, DS) and he has been awarded with the Amazon AWS Machine Learning and Somalvico (best Italian young AI researcher) Awards. His first main topic of research is the Statistical Learning Theory with particular focus on the theoretical aspects of the problems of (Semi) Supervised Model Selection and Error Estimation. His second main topic of research is Data Science with particular reference to the problem of Trustworthy AI and the solution of real world problems by exploiting and improving the most recent Learning Algorithms and Theoretical Results in the fields of Machine Learning and Data Mining.

### EDUCATION

- 2014** Ph.D. “School in Sciences and Technologies for Knowledge and Information” (University of Genoa) with the thesis “Learning Based On Empirical Data”  
Dottorato Di Ricerca In Ingegneria Elettronica, Informatica, Della Robotica E Delle Telecomunicazioni - Scuola Di Dottorato Di Scienze E Tecnologie Per L’informazione E La Conoscenza (XXVI Ciclo) 04/04/2014
- 2010** MSc in Electronic Engineering (University of Genoa)  
Laurea Specialistica In Ingegneria Elettronica presso l’Università di Genova 16/07/2010 (110 e Lode e Dignità di Stampa)
- 2008** BSc in Electronic Engineering (University of Genoa)  
Laurea In Ingegneria Elettronica presso l’Università di Genova 26/09/2008 (110 e Lode)
- 2005** High School degree (Scientific High School ITIS G. Natta - G. V. Deambrosis)  
Diploma di Maturità Scientifica al Liceo Scientifico Tecnologico ITIS G. Natta - G. V. Deambrosis (100/100)

### QUALIFICATIONS

- 2019** Italian National Scientific Qualification for the role of Full Professor in Computer Science (ASN 2018-2020 settore 01/B1 I Fascia I trimestre dal 09/05/2019 al 09/05/2025)
- 2019** Italian National Scientific Qualification for the role of Full Professor in Computer Engineering (ASN 2018-2020 settore 09/H1 I Fascia I trimestre dal 06/05/2019 al 06/05/2025)
- 2018** Italian National Scientific Qualification for the role of Associate Professor in Computer Science (ASN 2016-2018 settore 01/B1 II Fascia IV trimestre dal 28/03/2018 al 28/03/2024)
- 2017** Italian National Scientific Qualification for the role of Associate Professor in Computer Engineering (ASN 2016-2018 settore 09/H1 II Fascia I trimestre dal 04/04/2017 al 04/04/2023)
- 2010** Member of the Italian Information Engineer Association

## CURRENT POSITIONS

**2019 - present** Associate Professor (University of Genoa) Computer Engineering  
Professore Associato (Università di Genova) (Settore 09/H1, SSD ING-INF/05)

## PREVIOUS POSITIONS

**2019 - 2019** Associate Professor (University of Pisa) Computer Science  
Professore Associato (Università di Pisa) (Settore 01/B1, SSD INF/01)

**2016 - 2019** Assistant Professor, Fixed Term Position (University of Genoa) Computer Engineering  
Ricercatore a t.d. - t.pieno presso l'Università di Genova (art. 24 c.3-a L. 240/10)  
Ingegneria Informatica (Settore 09/H1, SSD ING-INF/05)

**2014 - 2015** Postdoc (University of Genoa) Electronic Engineering  
Assegno di Ricerca art. 51, comma 6, della Legge n. 449/1997 e successive modificazioni  
e ai sensi dell'art. 22 della L.240/2010 Università di Genova - Dip. L.240/2010 DITEN  
Ingegneria Elettronica (Settore 09/E3, SSD ING-INF/01)

## INTERNATIONAL RESEARCH TEACHING FELLOWSHIPS

**2018** Visiting Professor at the University of Strathclyde (United Kingdom)  
3 months (from June to August)

**2017** Visiting Professor at the Lulea University of Technology (Sweden)  
2 months (July and August)

**2016** Visiting Professor at the Nanyang Technological University (Singapore)  
1 month (November)

**2012** Visiting Researcher at the Siemens Research Center in Princeton (USA)  
3 months (from June to August)

## SPIN-OFF

**2017 - present** Founding Member of the University Spin-Off ZenaByte s.r.l.

## OTHERS

**2021 - present** Coordinator of the CV "Cybersecurity and Reliable AI" of the "PhD Program in Security, Risk and Vulnerability" of the University of Genoa

**2020 - present** Member of the Scientific Committee of the "Centro Dati, Informatica e Telematica di Ateneo" at University of Genoa

**2018 - present** Responsible of the Agreement Between the University of Genoa and the University of Strathclyde

## AFFILIATIONS

**2018 - 2020** Affiliation to the Istituto Italiano di Tecnologia

## AWARDS

**2019** Somalvico Prize (Best Italian AI Researcher Under 37)

**2019 - 2021** Amazon Web Services (AWS) Machine Learning Research Awards, Algorithm Fairness Grant University of Genoa for a joint research and teaching project at University of Strathclyde (United Kingdom)

**2018** Grant Lericci for a joint research and teaching project at Lulea University of Technology (Sweden)

**2017** Grant Lericci for a joint research and teaching project at Lulea University of Technology (Sweden)

**2010** Third price at Microsoft Imagine Cup 2010 Software Design Competition Italian finals (Project: "BYBNet")

**2009** First prize at Microsoft Imagine Cup 2009 Game Development Competition Italian finals (Project: "Help Africa")

## PROJECT REVIEWER

**2019** Azione 1.1.4 del POR FESR Veneto 2014-2020 (DGR 711/2019)

## PROFESSIONAL MEMBERSHIP

- 2011 - present IEEE Computational Intelligence Society
- 2011 - present INNS International Neural Network Society
- 2011 - present ACM Association for Computing Machinery
- 2011 - present AIXIA Associazione Italiana per l'Intelligenza Artificiale

## SUPERVISION OR CO-SUPERVISION OF STUDENTS AND POSTDOCTORAL FELLOWS

- 2011 - present 25 PostDoc, 16 PhD Students, 70 MSc Students, 22 BSc Students

## COMMITTEE (INTERNATIONAL)

- 2020 PhD at National Research University, Moscow, Russia
- 2019 PhD at National Research University, Moscow, Russia
- 2018 PhD at University of Strathclyde, Glasgow, United Kingdom
- 2017 PhD at Joint University of Genoa & Eindhoven University of Technology, Eindhoven, Netherlands

## COMMITTEE (NATIONAL)

- 2020 PhD Sicurezza, Rischio e Vulnerabilità (University of Genoa)
- 2020 PhD Brain, Mind and Computer Science (University of Padua)
- 2019 PhD Course in Computer Science (University of Pisa)
- 2019 PhD Course in Computer Science (University of Calabria)
- 2019 PhD Course in Computer Science and Engineering (University of Genoa)
- 2017 - 2018 BSc, Percorso formativo di eccellenza di Scienze e Tecnologie per la Società della Informazione (University of Genoa)
- 2016 - 2019 MSc and MSc in Biomedical Engineering (University of Genoa)
- 2016 - 2017 MSc in Ingegneria Della Sicurezza: Trasporti e Sistemi Territoriali (University of Genoa)
- 2014 - 2017 MSc in Electronic Engineering (University of Genoa)

## INTERNATIONAL TEACHING ACTIVITIES

- 2018 - 2019 *Data Analysis for Engineering*, University of Strathclyde PhD course, (2 years, 30 hours each year)
- 2017 *Data Analysis and Data Mining*, Lulea University of Technology PhD course, 30 hours
- 2016 *Model Selection and Error Estimation*, Nanyang Technological University PhD course, 10 hours

## NATIONAL TEACHING ACTIVITIES

- 2021 - present *Robotics Use Cases*, University of Genoa BSc in Robotics Engineering, (1 years, 1 credits each year)
- 2021 - present *Analisi e Rappresentazione dei Dati*, University of Genoa BSc in Management Engineering, (1 years, 3 credits each year)
- 2020 - present *Probabilità e Statistica per l'Ingegneria*, University of Genoa BSc Computer Engineering, (2 years, 3 credits each year)
- 2020 - present *Calcolatori Elettronici Modulo 1: Reti Logiche*, University of Genoa BSc Computer Engineering, (2 years, 3 credits each year)
- 2020 - present *Machine Learning and Data Analysis*, University of Genoa MSc Computer Science and Computer Engineering, (2 years, 6 credits each year)
- 2021 - present *Trustworthy AI: Learning from Data with Safety, Fairness, Privacy, and Interpretability Requirements*, University of Genoa PhD Security, Risk and Vulnerability, (1 years, 20 hours each year)
- 2015 - present *Theory and practice of learning from data*, University of Genoa PhD Computer Science and Computer Engineering, (7 years, 20 hours each year)
- 2019 - 2021 *ICT*, University of Genoa BSc Maritime Science and Technology, (1 years, 6 credits each year)
- 2019 - 2020 *Programmazione I e laboratorio*, University of Pisa BSc Computer Science, (2 years, 6 credits each year)

- 2019 - 2020 *Theory and practice of learning from data*, University of Pisa PhD Computer Science, (1 year, 20 hours)
- 2019 - 2020 *Sistemi Operativi e Laboratorio*, University of Pisa BSc Computer Science, (2 years, 6 credits each year)
- 2018 *Data Analytics*, University of Genoa, Master Universitario di II livello in Internet delle Cose & Big Data, (1 year, 2 credits)
- 2016 - 2020 *Data Analysis and Data Mining*, University of Genoa MSc Computer Science and Computer Engineering, (4 years, 3 credits each year)
- 2016 - 2017 *Sistemi Informativi per i Trasporti*, University of Genoa MSc Safety Engineering for Transport, Logistics and Production, (2 years, 5 credits each year)
- 2015 - 2020 *Reti Logiche*, University of Genoa BSc Biomedical Engineering, (5 years, 3 credits each year)
- 2016 - 2020 *Reti Logiche*, University of Genoa BSc Computer Engineering, (4 years, 3 credits each year)
- 2016 - 2019 *Applied Mathematical Modelling and Automation Control*, University of Genoa MSc Electronic Engineering, (5 years, 1 credit each year)
- 2015 - 2017 *Computational Intelligence*, University of Genoa MSc Electronic Engineering, (3 years, 5 credits each year)
- 2011 - 2015 *Applied Mathematical Modelling and Statistics*, University of Genoa MSc Electronic Engineering, (5 years, 1 credits each year)
- 2011 - 2019 *Data Mining*, University of Genoa BSc Statistics and Mathematics, (9 years, 3 credits each year)

## CONFERENCES AND WORKSHOPS ORGANIZATION

**Program Co-Chair:** INNS Conference on Big Data (2019)

**Special Sessions Organizer and Co-Chair:**

European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning

- 2021 Complex Data: Learning Trustworthily, Automatically, and with Guarantees
- 2019 Societal Issues in Machine Learning: When Learning from Data is Not Enough
- 2018 Emerging trends in machine learning: beyond conventional methods and data
- 2016 Advances in Learning with Kernels: Theory and Practice in a World of growing Constraints
- 2015 Advances in learning analytics and educational data mining
- 2014 Byte the bullet: learning on real-world computing architectures
- IJCNN International Joint Conference on Neural Networks
- 2018 Empowering Deep Learning Models
- 2017 Large Datasets and Big Data Analytics: Theory, Methods, and Applications
- INNS Conference on Big Data (from 2015 to 2018)
- 2015 - 2018 Advances and perspectives of Big Data Analytics in Transportation (same Special Session for 4 years)

**Programme Committee:** AISTAT (2020), AAAI (2020), ECML (2019), ESANN (from 2015 to 2018), INNS BDDL (from 2015 to 2019), IEEE Computational Intelligence Magazine (in 2015 and in 2018), IJCNN (in 2017, 2018, and 2019), ICPRAI (in 2018), FOCI (in 2017), CloudCom (from 2017 to 2020), ICACCP (in 2017 and 2019), ICANN (in 2014 and 2019), MOSES (2019), SSCI (2018), IJCAI (from 2019 to 2021), ELM (2019), ICDM HDM (2019), ECAI (2020), IEEE IS (2019), MELECON (2020), NCTA (2020)

## EDITORIAL ACTIVITIES

**Editor:** Associate Editor of Data-Enabled Discovery and Applications (Springer Journal) from 2017, Cognitive Computation (Springer Journal) from 2018, IEEE Computational Intelligence Magazine in 2018, Neurocomputing (Elsevier Journal) from 2019, Knowledge-Based Systems (Elsevier Journal) from 2020, Neural Processing Letters (Springer Journal) from 2020

**Special Issue Editor:** Special Issue of the ESANN conference in Neurocomputing (from 2017 to 2020)

**Editorial Board:** Modeling and Optimization in Science and Technologies (Springer Book Series) from 2014, and Lecture Notes in Bioengineering (Springer Book Series) from 2017

**Journal Reviewer:** IEEE Transactions on Neural Networks and Learning Systems (>30 reviews), Neural Networks (>20 reviews), Neurocomputing (>30 reviews), International Journal of Automation and Computing (>5 reviews), Pattern Recognition Letters (>40 reviews), Expert Systems With Applications (>20 reviews),

Nonlinear Analysis: Hybrid Systems, Engineering Applications of Artificial Intelligence (>5 reviews), Journal of Network and Computer Applications (>5 reviews), Robotics and Autonomous Systems (>5 reviews), International Journal of Machine Learning and Cybernetics (>10 reviews), Knowledge-based systems (>20 reviews), Sensors (>10 reviews), PLOS ONE (>5 reviews), Future Generation Computer Systems (>5 reviews)

## RESEARCH GROUPS AFFILIATION AND COORDINATION

### Coordinator

**2010 - present** Research group SMARTLAB together with Prof. Davide Anguita at DIBRIS, University of Genoa

### Affiliation

**2020 - present** Core Faculty of the Ellis Unit Genoa, ELLIS-IIT-UNIGE

**2019 - 2020** Computational Intelligence & Machine Learning Group, University of Pisa

**2017 - 2021** Computational Statistics and Machine Learning, Istituto Italiano di Tecnologia

**2017 - 2019** Scientific Advisor for the Cattedra UNESCO in “Antropologia della Salute Biosfera e sistemi di cura” at University of Genoa

**2015 - present** Research group SENTICNET, Nanyang technological University, Singapore

**2013 - 2016** Research group DESIGNED INTELLIGENCE GROUP, Eindhoven University of Technology, Netherlands

**2012 - 2015** Research group CETpD, Universitat Politècnica de Catalunya, Spain

**2012** Research group SIEMENS RESEARCH CENTER, Princeton, USA

## INVITED TALKS & TUTORIALS

**2020** Fair AI in a Nutshell: International Joint Conference on Artificial Intelligence and the Pacific Rim International Conference on Artificial Intelligence, Yokohama, Japan

**2020** Algorithmic Fairness: (i) University of Padua, (ii) University College London

**2019** Past, Present, and Future of Learning from Data (i) University of Bologna

**2018** Fair and Private Learning from Data: (i) University of Pisa, 2018, (ii) 2018 SAP Leonardo Machine Learning Research Retreat

**2018** Advances in Data Analysis for Naval Propulsion Plants (University of Strathclyde - 2018)

**2017** Differential Privacy and Generalization: Sharper Bounds, Theoretically Grounded Algorithms, and Thresholdout (Summer School on Applied Harmonic Analysis - University of Genoa - 2017)

**2016-2017** Statistical Learning Theory: from the Vapnik-Chervonenkis theory to Learning Through Privacy: (i) National University of Magdeburg in 2017, (ii) Nanyang Technological University in 2016, (iii) National University of Singapore in 2016, (iv) Hong Kong University of Science and Technology in 2016, (v) University of Cagliari in 2018

**2015-2016** Model Selection and Error Estimation Without the Agonizing Pain: (i) The International Workshop on Machine learning, Optimization and big Data, Volterra, Tuscany, Italy in 2016 (ii) INNS Conference on Big Data, Thessaloniki, Greece in 2016, (iii) IEEE International Conference on Data Science and Advanced Analytics, Montreal, Canada in 2016, (iv) University of Padua in 2016

**2011** Introduction to MATLAB, Robotic Engineering (University of Genoa - 2011)

## PROJECTS

### Projects as Principal or Co-Principal Investigator

**2017** EC H2020 - DAYDREAMS - Development of prescriptive Analytics based on artificial intelligence for iAMS (2020-2023) as Technical Coordinator

**2020** Vessels Condition Based Maintenance (SEASTEMA) (2020-2021) as Co-PI (50.000 Euro)

**2020** Turbine Blades Condition Based Maintenance (ANSALDO ENERGIA) (2020-2021) as PI (50.000 Euro)

**2020** Quiescent Periods (QP) prediction in ship motions. (CETENA) (2020-2022) as PI (105.000 Euro)

**2019** Condition-based maintenance of diesel engines: a case study on the Holland class offshore patrol vessels (Damen Schelde Naval Shipbuilding, Ministerie van Defensie) (2019-2021) as Co-PI (80.000 Euro)

- 2019** AWS Machine Learning Research Awards, Algorithm Fairness (Amazon) (2019-2021) PI(180.000 US Dollar)
- 2018** Enhancing Multitask Learning with Private and Fairness Constraints - SAP Germany (2018-2021) as Co-PI (450.000 Euro)
- 2017** Big Data Analytics Lab (Var Connect S.r.l.) (2017-2021) as PI (200.000 Euro)
- 2016** Machine Learning and Data Mining for Education: Students Dropout Prediction at University of Genoa (2016-2018), PRA-Unige as PI (15.000 Euro)
- 2016** Data Science and Cybersecurity Lab (aizoOn S.r.l.) (2018-2021) as PI (160.000 Euro)

### **Projects as Scientific Leader**

- 2021** RADIUS - Railway Digitalisation Using Drones - H2020, with ZenaByte s.r.l.
- 2020** AMNESIA - Assessment of fairness of NGI AI-based future interactive technologies - H2020 NGLTRUST, 2nd open call, with ZenaByte s.r.l.
- 2020** FARO - saFety And Resilience guidelines for aviation, SESAR 2020 Call ER4, with ZenaByte s.r.l.
- 2020** EC H2020 - OPTIMA - cOmmunication Platform for Traffic ManAgement demonstrator (2020-2022) as Task Leader
- 2019** DIAPASON - A Data-drIven approach for dynamic and Adaptive trajectory PredictiON - SESAR Engage KTN first Call for catalyst funding, with ZenaByte s.r.l.
- 2019** Predictive Maintenance (NTT Data) (2019-2020) as Research Group Leader
- 2018** RAIDLab - Railway AI & Data analytics Lab (Ansaldo STS) (2018-2023) as Research Group Leader
- 2018** EC H2020 - HERMENEUT - Enterprises intangible Risk Management via Economic models based on simulation of modern cyber attacks - (2017-2019) with ZenaByte s.r.l. as Task Leader
- 2018** EC H2020 - LETS-CROWD - Law Enforcement agencies human factor methods and Toolkit for the Security and protection of CROWDs in mass gatherings - (2017-2019) with ZenaByte s.r.l. as Task Leader
- 2017** EC H2020 - In2Dreams - INtelligent solutions 2ward the Development of Railway Energy and Asset Management Systems in Europe (2017-2019) as Work Stream Leader
- 2016** EC H2020 - In2Rail - Innovative Intelligent Rail (2015-2018) as Task Leader
- 2016** Predictive and proactive analysis on Bombardier fleet's raw data (Bombardier Italy) as Research Group Leader
- 2013** Progetto di Ricerca di Ateneo 2013: Educational Data Mining per l'analisi dell'apprendimento in sistemi di Computer Aided Learning (Universit à degli Studi di Genova) as Research Group Leader
- 2012** Progetti di Ricerca di Ateneo per il Trasferimento Tecnologico 2012: Metodi di classificazione per dati biomedici ad elevata dimensionalità da sequenziamento high-throughput di nuova generazione, Next Generation Sequencing - NGS, (Universit à degli Studi di Genova) as Research Group Leader

### **Projects as Member**

- 2019** EC H2020 - TEACHING - A Computing Toolkit For Building Efficient Autonomous Applications Leveraging Humanistic Intelligence (2020-2023)
- 2013** EC FP7 - MAXBE - Interoperable Monitoring, Diagnosis and Maintenance Strategies for Axle Bearings (2013-2015)
- 2015** Studio di algoritmi di fusione e correlazione dati avendo come input dati di sistemi di monitoraggio delle boccole (Ansaldo STS)
- 2014** Studio delle possibilità di applicazione di sistemi di controllo intelligenti dei passaggi a livello e intrusione nel contesto europeo (Ansaldo STS)
- 2009** Embedded Systems for Energy Efficiency Buildings (EC-ARTEMIS-eDIANA di Elsag Data-mat) (2009-2011)
- 2015** Smart Manufacturing 2020 (MIUR - Cluster Tecnologico Nazionale Fabbrica Intelligente) (2015-2016)
- 2014** GESTEC: Tecnologie orientate ai servizi per lo sviluppo e per l'integrazione di piattaforme ICT (MIUR - Distretto Tecnologico Ligure SIIT) (2014-2016)
- 2013** IANUS: Integrated AssistaNce on Unguarded Systems (Liguria - Polo SI4LIFE) (2013-2016)

## PROFESSIONAL ACTIVITIES

- 2018** CUOA Business School (Big Data & Business Analytics Course)  
**2018** Teaching activities at F.ire Srl (Big Data Awareness Course)  
**2012-2018** Teaching activities at Iso Sistemi Srl (Big Data Analytics and C# Courses)  
**2011-2012** Consultant for Mac96 S.r.l. for Italian Project SISFERR (Ministry of Economic Development, Industry 2015) and SLIMRAIL (Ministry of Economic Development, Industry 2015)

## PUBLICATIONS

### Publication summary

The total number of citations of my papers is 3065 and my h-index is 24 (according to Scopus).  
The total number of citations of my papers is 5176 and my h-index is 28 (according to Google Scholar).

### Full list of publications

#### Books

- B005** G. Donzellini, A. M. Garavagno, and L. Oneto. *Introduction to microprocessor-based systems design*. Springer, 2020  
**B004** G. Donzellini, A. M. Garavagno, and L. Oneto. *Introduzione al progetto di sistemi a microprocessore*. Springer, 2020  
**B003** L. Oneto. *Model Selection and Error Estimation in a Nutshell*. Springer, 2020  
**B002** G. Donzellini, L. Oneto, D. Ponta, and Anguita. D. *Introduction to Digital Systems Design*. Springer, 2019  
**B001** G. Donzellini, L. Oneto, D. Ponta, and Anguita. D. *Introduzione al Progetto di Sistemi Digitali*. Springer, 2018

#### Edited Books

- EB002** L. Oneto, N. Navarin, N. Sperduti, and Anguita. D. *Recent Trends in Learning From Data*. Springer, 2020  
**EB001** L. Oneto, N. Navarin, N. Sperduti, and Anguita. D. *Recent Advances in Big Data and Deep Learning*. Springer, 2019

#### Book Chapters

- BC006** L. Oneto and S. Chiappa. Fairness in machine learning. In L. Oneto, N. Navarin, N. Sperduti, and Anguita. D., editors, *Recent Trends in Learning From Data*. Springer, 2020  
**BC005** L. Oneto, E. Fumeo, C. Clerico, R. Canepa, F. Papa, C. Dambra, N. Mazzino, and Anguita. D. Big data analytics for train delay prediction: A case study in the italian railway network. In S. Kohli, A. V. Senthil, J. M. Easton, and C. Roberts, editors, *Innovative Applications of Big Data in the Railway Industry*. IGI Global, 2017  
**BC004** L. Oneto, J. L. Reyes-Ortiz, and D. Anguita. Constraint-aware data analysis on mobile devices. In M. Migliardi, A. Merlo, and S. Al-Haj Baddar, editors, *Adaptive Mobile Computing: Advances in Processing of Mobile Data Set*. Elsevier, 2017  
**BC003** A. Coraddu, L. Oneto, F. Baldi, and D. Anguita. Vessels fuel consumption: a data analytics perspective to sustainability. In C. Cruz, editor, *Soft Computing for Sustainability Science. Serie Studies In Fuzziness and Soft Computing*. Springer, 2016  
**BC002** L. Oneto, S. Ridella, and D. Anguita. Quantum computing and supervised machine learning: Training, model selection and error estimation. In S. Bhattacharyya, U. Malik, and P. Dutta, editors, *Quantum Inspired Computational intelligence: Research and Applications*. Morgan Kaufmann, Elsevier, 2016  
**BC001** F. Bisio, L. Oneto, and E. Cambria. Sentic computing for social network analysis. In F. A. Pozzi, E. Fersini, E. Messina, and B. Liu, editors, *Sentiment Analysis in Social Networks*. Elsevier, 2016

#### International Journals

- J063** J. Walker, A. Coraddu, M. Collu, and L. Oneto. Digital twins of the mooring line tension for floating offshore wind turbines to improve monitoring, lifespan, and safety. *Journal of Ocean Engineering and Marine Energy*, -:-, 2021

- J062** D. Franco, L. Oneto, N. Navarin, and D. Anguita. Toward learning trustworthily from data combining privacy, fairness, and explainability: an application to face recognition. *Entropy*, -:-, 2021
- J061** L. Oneto, K. Bunte, and N. Navarin. Advances in artificial neural networks, machine learning and computational intelligence. *Neurocomputing*, pages –, 2021
- J060** D. Franco, N. Navarin, M. Donini, D. Anguita, and L. Oneto. Deep fair models for complex data: Graphs labeling and explainable face recognition. *Neurocomputing*, -:-, 2021
- J059** A. Coraddu, L. Oneto, F. Cipollini, M. Kalikatzarakis, G. J. Meijn, and R. Geertsma. Physical, data-driven, and hybrid approaches to model engine exhaust gas temperatures in operational conditions. *Ships and Offshore Structures*, -:-, 2021
- J058** A. Coraddu, L. Oneto, D. Ilardi, S. Stoumpos, and G. Theotokatos. Marine dual fuel engines monitoring in the wild through weakly supervised data analytics. *Engineering Applications of Artificial Intelligence*, -:-, 2021
- J057** L. Oneto and S. Ridella. Distribution dependent weighted union bound. *Entropy*, -:-, 2021
- J056** D. Chicco and L. Oneto. Data analytics and clinical feature ranking of medical records of patients with sepsis. *BioData Mining*, -:-, 2021
- J055** D. Chicco and L. Oneto. Computational intelligence identifies alkaline phosphatase (alp), alpha-fetoprotein (afp), and hemoglobin levels as most predictive survival factors for hepatocellular carcinoma. *Health Informatics Journal*, -:-, 2021
- J054** D. Chicco and L. Oneto. An enhanced random forests approach to predict heart failure from small imbalanced gene expression data. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, -:-, 2020
- J053** M. Kalikatzarakis, A. Coraddu, L. Oneto, and D. Anguita. Optimising fuel consumption in thrust allocation for marine dynamic positioning systems. *IEEE Transactions on Automation Science and Engineering*, -:-, 2020
- J052** V. D’Amato, Volta E., L. Oneto, G. Volpe, A. Camurri, and Anguita DUnderstanding violin players skills level based on motion capture: a data driven perspective. *Cognitive Computation*, -:-, 2020
- J051** L. Ponta, G. Puliga, L. Oneto, and R. Manzini. Identifying the determinants of innovation capability with machine learning: how patents can be predictive. *IEEE Transactions on Engineering Management*, -:-, 2020
- J050** A Coraddu, L. Oneto, B. Navas de Maya, and K. Rafet. Determining the most influential human factors in maritime accidents: a data-driven approach. *Ocean Engineering*, -:-, 2020
- J049** L. Miglianti, F. Cipollini, L. Oneto, G. Tani, S. Gaggero, A. Coraddu, and M. Viviani Predicting the cavitating marine propeller noise at design stage: a deep learning based approach. *Ocean Engineering*, -:-, 2020
- J048** L. Oneto, K. Bunte, and A. Sperduti. Advances in artificial neural networks, machine learning and computational intelligence. *Neurocomputing*, pages –, 2020
- J047** L. Oneto, M. Donini, M. Pontilc, and J. Shawe-Taylor. Randomized learning and generalization of fair and private classifiers: from pac-bayes to stability and differential privacy. *Neurocomputing*, -:-, 2020
- J046** L. Oneto. Learning fair models and representations. *Intelligenza Artificiale*, 14(1):151–178, 2020
- J045** A. Picasso, S. Merello, Y. Ma, L. Oneto, and E. Cambria. Technical analysis and sentiment embeddings for market trend prediction. *Expert Systems With Applications*, 135:60–70, 2019
- J044** A. Coraddu, L. Oneto, F. Baldi, F. Cipollini, M. Atlar, and S. Savio Data-driven ship digital twin for estimating the speed loss caused by the marine fouling. *Ocean Engineering*, -:-, 2019
- J043** A. Carrega, F. Cipollini, and L. Oneto. Simple continuous optimal regions of the space of data. *Neurocomputing*, 349:91–104, 2019
- J042** F. Miglianti, F. Cipollini, L. Oneto, G. Tani, and M. Viviani. Model scale cavitation noise spectra prediction: Combining physical knowledge with data science. *Ocean Engineering*, 178:185–203, 2019
- J041** A. Coraddu, S. Lim, L. Oneto, K. Pazouki, R. Norman, and A. J. Murphy. A novelty detection approach to diagnosing hull and propeller fouling. *Ocean Engineering*, 176:65–73, 2019
- J040** L. Oneto, K. Bunte, and F. M. Schleif. Advances in artificial neural networks, machine learning and computational intelligence. *Neurocomputing*, 342:1–5, 2019
- J039** L. Oneto, I. Buselli, A. Lulli, R. Canepa, S. Petralli, and D. Anguita. A dynamic, interpretable, and robust hybrid data analytics system for train movements in large-scale railway networks. *International Journal of Data Science and Analytics*, 9(1):95–111, 2019

- J038** F. Cipollini, L. Oneto, A. Coraddu, and Savio. S. Unsupervised deep learning for induction motors bearings monitoring. *Data-Enabled Discovery and Applications*, 3(1), 2018
- J037** A. Lulli, L. Oneto, and D. Anguita. Mining big data with random forests. *Cognitive Computation*, 11(2):294–316, 2018
- J036** L. Oneto, S. Ridella, and D. Anguita. Local rademacher complexity machine. *Neurocomputing*, 342:24–32, 2019
- J035** L. Oneto, A. Coraddu, F. Cipollini, O. Karpenko, K. Xepapa, P. Sanetti, and D. Anguita. Crash stop manoeuvring performance prediction: a data driven solution for safety and collision avoidance. *Data-Enabled Discovery and Applications*, 2(11), 2018
- J034** F. Cipollini, L. Oneto, A. Coraddu, A. J. Murphy, and D. Anguita. Condition-based maintenance of naval propulsion systems: Data analysis with minimal feedback. *Reliability Engineering & System Safety*, 177:12–23, 2018
- J033** F. Aiolli, M. Biehl, and L. Oneto. Advances in artificial neural networks, machine learning and computational intelligence. *Neurocomputing*, 298:1–3, 2018
- J032** L. Oneto. Model selection and error estimation without the agonizing pain. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 8(4), 2018
- J031** F. Cipollini, L. Oneto, A. Coraddu, A. J. Murphy, and D. Anguita. Condition-based maintenance of naval propulsion systems with supervised data analysis. *Ocean Engineering*, 149:268–278, 2018
- J030** L. Oneto, N. Navarin, M. Donini, S. Ridella, A. Sperduti, F. Aiolli, and D. Anguita. Learning with kernels: A local rademacher complexity-based analysis with application to graph kernels. *IEEE Transactions on Neural Networks and Learning Systems*, 29(10):4660–4671, 2018
- J029** L. Oneto, F. Cipollini, S. Ridella, and D. Anguita. Randomized learning: Generalization performance of old and new theoretically grounded algorithms. *Neurocomputing*, 298:21–33, 2018
- J028** S. Aonzo, A. Merlo, M. Migliardi, L. Oneto, and F. Palmieri. Low-resource footprint, data-driven malware detection on android. *IEEE Transactions on Sustainable Computing*, -(–):–, 2017
- J027** L. Oneto, N. Navarin, A. Sperduti, and D. Anguita. Multilayer graph node kernels: Stacking while maintaining convexity. *Neural Processing Letters*, 48(2):649–667, 2017
- J026** L. Oneto, E. Fumeo, C. Clerico, R. Canepa, F. Papa, C. Dambra, N. Mazzino, and Anguita. D. Train delay prediction systems: a big data analytics perspective. *Big Data Research*, 11:54–64, 2018
- J025** L. Oneto, E. Fumeo, C. Clerico, R. Canepa, F. Papa, C. Dambra, N. Mazzino, and Anguita. D. Dynamic delay predictions for large-scale railway networks: Deep and shallow extreme learning machines tuned via thresholdout. *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 47(10):2754–2767, 2017
- J024** L. Oneto, N. Navarin, M. Donini, A. Sperduti, F. Aiolli, and D. Anguita. Measuring the expressivity of graph kernels through statistical learning theory. *Neurocomputing*, 268:4–16, 2017
- J023** L. Oneto, F. Laureri, M. Robba, F. Delfino, and D. Anguita. Data-driven photovoltaic power production nowcasting and forecasting for polygeneration microgrids. *IEEE System Journal*, 12(3):2842–2853, 2017
- J022** L. Oneto, S. Ridella, and D. Anguita. Differential privacy and generalization: Sharper bounds with applications. *Pattern Recognition Letters*, 89:31–38, 2017
- J021** L. Coraddu, A. Oneto, F. Baldi, and D. Anguita. Vessels fuel consumption forecast and trim optimisation: a data analytics perspective. *Ocean Engineering*, 130:351–370, 2017
- J020** L. Oneto, F. Bisio, E. Cambria, and D. Anguita. Slt-based elm for big social data analysis. *Cognitive Computation*, 9(2):259–274, 2017
- J019** L. Oneto, F. Bisio, E. Cambria, and D. Anguita. Semi-supervised learning for affective common-sense reasoning. *Cognitive Computation*, 9(1):18–42, 2017
- J018** L. Oneto, F. Bisio, E. Cambria, and D. Anguita. Statistical learning theory and elm for big social data analysis. *IEEE Computational Intelligence Magazine*, 11(3):45–55, 2016
- J017** L. Oneto, D. Anguita, and S. Ridella. Pac-bayesian analysis of distribution dependent priors: Tighter risk bounds and stability analysis. *Pattern Recognition Letters*, 80:200–207, 2016
- J016** L. Oneto, D. Anguita, and S. Ridella. A local vapnik-chervonenkis complexity. *Neural Networks*, 82:62–75, 2016
- J015** L. Oneto, S. Ridella, and D. Anguita. Tikhonov, ivanov and morozov regularization for support vector machine learning. *Machine Learning*, 103(1):103–136, 2015
- J014** L. Oneto, S. Ridella, and D. Anguita. Learning hardware-friendly classifiers through algorithmic stability. *ACM Transaction on Embedded Computing*, 15(2):23:1–23:29, 2016

- J013** M. Vahdat, L. Oneto, D. Anguita, M. Funk, and M. Rauterberg. Can machine learning explain human learning? *Neurocomputing*, 192:14–28, 2016
- J012** J. L. Reyes-Ortiz, L. Oneto, A. Sama, X. Parra, and D. Anguita. Transition-aware human activity recognition using smartphones. *Neurocomputing*, 171:754–767, 2016
- J011** L. Oneto, A. Ghio, S. Ridella, and D. Anguita. Global rademacher complexity bounds: From slow to fast convergence rates. *Neural Processing Letters*, 43(2):567–602, 2015
- J010** L. Oneto, A. Ghio, S. Ridella, and D. Anguita. Local rademacher complexity: Sharper risk bounds with and without unlabeled samples. *Neural Networks*, 65:115–125, 2015
- J009** L. Oneto, A. Ghio, S. Ridella, and D. Anguita. Learning resource-aware models for mobile devices: from regularization to energy efficiency. *Neurocomputing*, 169:225–235, 2015
- J008** L. Oneto, A. Ghio, S. Ridella, and D. Anguita. Fully empirical and data-dependent stability-based bounds. *IEEE Transactions on Cybernetics*, 45(9):1913–1926, 2015
- J007** A. Coraddu, L. Oneto, A. Ghio, S. Savio, D. Anguita, and M. Figari. Machine learning approaches for improving condition-based maintenance of naval propulsion plants. *Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment*, 230(1):136–153, 2016
- J006** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. A deep connection between the vapnik-chervonenkis entropy and the rademacher complexity. *IEEE Transactions on Neural Networks and Learning Systems*, 25(12):2202–2211, 2014
- J005** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. Unlabeled patterns to tighten rademacher complexity error bounds for kernel classifiers. *Pattern Recognition Letters*, 37:210–219, 2014
- J004** L. Oneto, A. Ghio, D. Anguita, and S. Ridella. An improved analysis of the rademacher data-dependent bound using its self bounding property. *Neural Networks*, 44:107–111, 2013
- J003** D. Anguita, A. Ghio, L. Oneto, X. Parra, and J. L. Reyes-Ortiz. Energy efficient smartphone-based activity recognition using fixed-point arithmetic. *Journal of Universal Computer Science*, 19(9):1295–1314, 2013
- J002** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. In-sample model selection for trimmed hinge loss support vector machine. *Neural processing letters*, 36(3):275–283, 2012
- J001** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. In-sample and out-of-sample model selection and error estimation for support vector machines. *IEEE Transactions on Neural Networks and Learning Systems*, 23(9):1390–1406, 2012

## International Conferences

I was the presenter author for [C5, C13, C14, C18, C19, C25, C26, C27, C28, C29, C30, C31, C32, C33, C40, C41, C42, C43, C44, C48, C49, C53, C54, C57, C60, C62, C68, C72, C77, C79, C80, C81, C82, C83, C84, C86, C96, C97, C98].

- C102** V. D’Amato, L. Oneto, A. Camurri, and D. Anguita. Keep it simple: Handcrafting feature and tuning random forests and xgboost to face the affective movement recognition challenge 2021. In *International Conference on Affective Computing & Intelligent Interaction (ACII) Workshop - Affective Movement Recognition Challenge and Workshop*, 2021
- C101** J. M. Cordero, I. Garcia-Ovies, E. Iglesias, C. Dambra, I. Buselli, L. Oneto, C. Abate, S. Pozzi, and A. R. Sanz. Traffic characterization for a dynamic and adaptive trajectory prediction data-driven approach. In *SESAR Innovation Days (SIDs)*, 2020
- C100** J. Walker, A. Coraddu, L. Oneto, and S. Kilbourn. Digital twin of the mooring line tension for floating offshore wind turbines. In *Global OCEANS 2021 (OCEANS)*, 2021
- C099** G. Cecchetti, A. L. Ruscelli, P. Castoldi, C. Ulianov, P. Hyde, L. Oneto, and P. Marton. Communication platform concept for virtual testing of novel applications for railway traffic management systems. In *Euro Working Group on Transportation Meeting (EWGT)*, 2021
- C098** L. Oneto, N. Navarin, B. Biggio, F. Errica, A. Micheli, F. Scarselli, M. Bianchini, and A. Sperduti. Complex data: Learning trustworthily, automatically, and with guarantees. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2021
- C097** L. Oneto, S. Ridella, and D. Anguita. The benefits of adversarial defence in generalisation. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2021
- C096** G. Boleto, L. Oneto, M. Cardellini, M. Maratea, M. Vallati, R. Canepa, and D. Anguita. In-station

- train movements prediction: from shallow to deep multi scale models. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2021
- C095** V. D’Amato, E. Volta, L. Oneto, G. Volpe, A. Camurri, and D. Anguita. Accuracy and intrusiveness in data-driven violin players skill levels prediction: Mocap against myo against kinect. In *International Work-Conference on Artificial and Natural Neural Networks (IWANN)*, 2021
- C094** M. Kalikatzarakis, Coraddu A., M. Atlar, G. Tani, S. Gaggero, D. Villa, and L. Oneto. Computational prediction of propeller cavitation noise. In *Conference on Computational Methods in Marine Engineering (Marine)*, 2021
- C093** M. Kalikatzarakis, Coraddu A., G. Theotokatos, and L. Oneto. Development of a zero-dimensional model and application on a medium-speed marine four-stroke diesel engine. In *International Conference on Modelling and Optimisation of Ship Energy Systems (MOSES)*, 2021
- C092** D. Franco, L. Oneto, N. Navarin, and D. Anguita. Learn and visually explain deep fair models: an application to face recognition. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2021
- C091** M. Cardellini, M. Maratea, M. Vallati, G. Boleto, and L. Oneto. A planning-based approach for in-station train dispatching. In *International Symposium on Combinatorial Search (SoCS)*, 2021
- C090** M. Cardellini, M. Maratea, M. Vallati, G. Boleto, and L. Oneto. An efficient hybrid planning framework for in-station train dispatching. In *International Conference on Computational Science (ICCS)*, 2021
- C089** M. Cardellini, M. Maratea, M. Vallati, G. Boleto, and L. Oneto. In-station train dispatching: a PDDL+ planning approach. In *International Conference on Automated Planning and Scheduling (ICAPS)*, 2021
- C088** E. Chzhen, H. Hebiri, C. Denis, L. Oneto, and M. Pontil. Fair regression with wasserstein barycenters. In *Advances in Neural Information Processing Systems (NIPS)*, 2020
- C087** E. Chzhen, C. Denis, H. Hebiri, L. Oneto, and M. Pontil. Fair regression via plug-in estimator and recalibration. In *Advances in Neural Information Processing Systems (NIPS)*, 2020
- C086** L. Oneto, M. Donini, G. Luise, C. Ciliberto, A. Maurer, and M. Pontil. Exploiting mmd and sinkhorn divergences for fair and transferable representation learning. In *Advances in Neural Information Processing Systems (NIPS)*, 2020
- C085** A. Coraddu, L. Oneto, M. Kalikatzarakis, D. Ilardi, and M. Collu. Floating spar-type offshore wind turbine hydrodynamic response characterisation: a computational cost aware approach. In *OCEANS 2020: Singapore-U.S. Gulf Coast (OCEANS)*, 2020
- C084** L. Oneto, M. Donini, M. Pontil, and A. Maurer. Learning fair and transferable representations with theoretical guarantees. In *IEEE International Conference on Data Science and Advanced Analytics (DSAA)*, 2020
- C083** L. Oneto, M. Donini, and M. Pontil. General fair empirical risk minimization. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2020
- C082** N. Navarin, M. Cambiaso, A. Burattin, F. M. Maggi, L. Oneto, and A. Sperduti. Towards online discovery of data-aware declarative process models from event streams. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2020
- C081** L. Oneto, F. Cipollini, L. Miglianti, G. Tani, S. Gaggero, A. Coraddu, and M. Viviani. Deep learning for cavitating marine propeller noise prediction at design stage. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2020
- C080** N. Navarin, L. Oneto, and M. Donini. Learning deep fair graph neural networks. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2020
- C079** L. Oneto, S. Ridalla, and D. Anguita. Improving the union bound: a distribution dependent approach. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2020
- C078** A. Consilvio, P. Sanetti, D. Anguita, C. Crovetto, C. Dambra, L. Oneto, F. Papa, and N. Sacco. Prescriptive maintenance of railway infrastructure: From data analytics to decision support. In *International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS)*, 2019
- C077** E. Chzhen, H. Hebiri, C. Denis, L. Oneto, and M. Pontil. Leveraging labeled and unlabeled data for consistent fair binary classification. In *Advances in Neural Information Processing Systems (NIPS)*, 2019

- C076** R. Manzini, L. Oneto, L. Ponta, G. Puliga, and C. Noe. Studying innovation with patents and machine learning algorithms: a laboratory for engineering students. In *SEFI Annual Conference (SEFI)*, 2019
- C075** F. Miglianti, G. Tani, M. Viviani, F. Cipollini, and L. Oneto. Data driven models for propeller cavitation noise in model scale. In *International Symposium on Marine Propulsors (SMP)*, 2019
- C074** S. Merello, A. Picasso, L. Oneto, and E. Cambria. Ensemble application of transfer learning and sample weighting for stock market prediction. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2019
- C073** F. Cipollini, F. Miglianti, L. Oneto, G. Tani, and M. Viviani. Hybrid model for cavitation noise spectra prediction. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2019
- C072** L. Oneto, M. Donini, and M. Pontil. Pac-bayes and fairness: Risk and fairness bounds on distribution dependent fair priors. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2019
- C071** C. Ducuing, L. Oneto, and R. Canepa. Fairness and accountability of machine learning models in railway market: are applicable railway laws up to regulate them? In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2019
- C070** D. Bacciu, B. Biggio, P. J. G. Lisboa, J. D. Martín, L. Oneto, and A. Vellido. Societal issues in machine learning: When learning from data is not enough. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2019
- C069** R. Spigolon, L. Oneto, D. Anastasovski, N. Fabrizio, M. Swiatek, R. Canepa, and D. Anguita. Improving railway maintenance actions with big data and distributed ledger technologies. In *INNS Big Data and Deep Learning (INNSBDDL)*, 2019
- C068** L. Oneto, I. Buselli, P. Sanetti, R. Canepa, S. Petralli, and D. Anguita. Restoration time prediction in large scale railway networks: Big data and interpretability. In *INNS Big Data and Deep Learning (INNSBDDL)*, 2019
- C067** L. Oneto, I. Buselli, A. Lulli, R. Canepa, S. Petralli, and D. Anguita. Train overtaking prediction in railway networks: a big data perspective. In *INNS Big Data and Deep Learning (INNSBDDL)*, 2019
- C066** F. Cipollini, F. Miglianti, L. Oneto, G. Tani, M. Viviani, and D. Anguita. Cavitation noise spectra prediction with hybrid models. In *INNS Big Data and Deep Learning (INNSBDDL)*, 2019
- C065** L. Ponta, G. Puliga, L. Oneto, and R. Manzini. Innovation capability of firms: A big data approach with patents. In *INNS Big Data and Deep Learning (INNSBDDL)*, 2019
- C064** S. Merello, A. Picasso, L. Oneto, and E. Cambria. Predicting future market trends: which is the optimal window? In *INNS Big Data and Deep Learning (INNSBDDL)*, 2019
- C063** U. Schlegel, W. Jentner, J. Buchmueller, E. Cakmak, G. Castiglia, R. Canepa, S. Petralli, L. Oneto, D. A. Keim, and D. Anguita. Visual analytics for supporting conflict resolution in large railway networks. In *INNS Big Data and Deep Learning (INNSBDDL)*, 2019
- C062** L. Oneto, M. Donini, A. Elders, and M. Pontil. Taking advantage of multitask learning for fair classification. In *AAAI/ACM Conference on AI, Ethics, and Society (AIES)*, 2019
- C061** S. Merello, A. Picasso, Y. Ma, L. Oneto, and E. Cambria. Investigating timing and impact of news on the stock market. In *IEEE International Conference on Data Mining, International Workshop on Sentiment Elicitation from Natural Text for Information Retrieval and Extraction (ICDM)*, 2018
- C060** M. Donini, L. Oneto, S. Ben-David, J. Shawe-Taylor, and M. Pontil. Empirical risk minimization under fairness constraints. In *Advances in Neural Information Processing Systems (NIPS)*, 2018
- C059** A. Picasso, S. Merello, Y. Ma, L. Malandri, L. Oneto, and E. Cambria. Ensemble of technical analysis and machine learning for market trend prediction. In *IEEE Symposium Series on Computational Intelligence (SSCI)*, 2018
- C058** A. Coraddu, M. Kalikatzarakis, L. Oneto, G. J. Meijn, M. Godjevac, and R. D. Geertsma. Ship diesel engine performance modelling with combined physical and machine learning approach. In *International Naval Engineering Conference and Exhibition (INEC)*, 2018
- C057** A. Lulli, L. Oneto, R. Canepa, S. Petralli, and D. Anguita. Large-scale railway networks train movements: a dynamic, interpretable, and robust hybrid data analytics system. In *IEEE International Conference on Data Science and Advanced Analytics (DSAA)*, 2018
- C056** F. Cipollini, L. Oneto, and A. Coraddu. A deep learning approach to marine propulsion system maintenance. In *International Symposium On Naval Architecture And Maritime (INT-NAN)*, 2018
- C055** F. Cipollini, L. Oneto, A. Coraddu, S. Savio, and D. Anguita. Unintrusive monitoring of induction motors bearings via deep learning on stator currents. In *INNS International Conference on Big Data and Deep Learning (INNS BDDL)*, 2018

- C054** L. Oneto, N. Navarin, M. Donini, and D. Anguita. Emerging trends in machine learning: Beyond conventional methods and data. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2018
- C053** L. Oneto, S. Ridella, and D. Anguita. Local rademacher complexity machine. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2018
- C052** A. Lulli, L. Oneto, and D. Anguita. Crack random forest for arbitrary large datasets. In *IEEE International Conference on Big Data (IEEE BIG DATA)*, 2017
- C051** L. Oneto, A. Coraddu, P. Sanetti, O Karpenko, F. Cipollini, T. Cleophas, and D. Anguita. Marine safety and data analytics: Vessel crash stop maneuvering performance prediction. In *International Conference on Artificial Neural Networks (ICANN)*, 2017
- C050** A. Lulli, L. Oneto, and D. Anguita. Reforest: Random forests in apache spark. In *International Conference on Artificial Neural Networks (ICANN)*, 2017
- C049** L. Oneto, A. Siri, G. Luria, and D. Anguita. Dropout prediction at university of genoa: a privacy preserving data driven approach. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2017
- C048** L. Oneto, S. Ridella, and D. Anguita. Generalization performances of randomized classifiers and algorithms built on data dependent distributions. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2017
- C047** L. Oneto, N. Navarin, A. Sperduti, and D. Anguita. Deep graph node kernels: a convex approach. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2017
- C046** L. Oneto, E. Fumeo, C. Clerico, R. Canepa, F. Papa, C. Dambra, N. Mazzino, and Anguita. D. Advanced analytics for train delay prediction systems by including exogenous weather data. In *IEEE International Conference on Data Science and Advanced Analytics (DSAA)*, 2016
- C045** L. Oneto, E. Fumeo, C. Clerico, R. Canepa, F. Papa, C. Dambra, N. Mazzino, and Anguita. D.Delay prediction system for large-scale railway networks based on big data analytics. In *INNS International Conference on Big Data (INNS BIG DATA)*, 2016
- C044** L. Oneto, A. Coraddu, D. Anguita, T. Cleophas, and K. Xepapa. Vessel monitoring and design in industry 4.0: a data driven perspective. In *International Forum on Research and Technologies for Society and Industry (RTSI)*, 2016
- C043** L. Oneto, N. Navarin, M. Donini, F. Aiolli, and D. Anguita. Advances in learning with kernels: Theory and practice in a world of growing constraints. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2016
- C042** L. Oneto, S. Ridella, and D. Anguita. Tuning the distribution dependent prior in the pac-bayes framework based on empirical data. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2016
- C041** I. Orlandi, L. Oneto, and D. Anguita. Random forests model selection. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2016
- C040** L. Oneto, N. Navarin, M. Donini, A. Sperduti, F. Aiolli, and D. Anguita. Measuring the expressivity of graph kernels through the rademacher complexity. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2016
- C039** A. Coraddu, T. Cleophas, K. Xepapa, L. Oneto, and D. Anguita. Operational profiles data analytics for ship design improvement. In *International Conference on Maritime Technology and Engineering (MARTECH)*, 2016
- C038** A. Coraddu, T. Cleophas, S. Ivancsics, and L. Oneto. Vessel monitoring based on sensors data collection. In *International Conference on Computer Applications and Information Technology in the Maritime Industries (COMPIT)*, 2016
- C037** M. Vahdat, L. Oneto, D. Anguita, M. Funk, and M. Rauterberg. A learning analytics approach to correlate the academic achievements of students with interaction data from an educational simulator. In *European Conference on Technology Enhanced Learning (EC-TEL)*, 2015
- C036** L. Oneto, I. Orlandi, and D. Anguita. Performance assessment and uncertainty quantification of predictive models for smart manufacturing systems. In *IEEE International Conference on Big Data (IEEE BIG DATA)*, 2015
- C035** J. L. Reyes-Ortiz, L. Oneto, and D. Anguita. Big data analytics in the cloud: Spark on hadoop vs mpi/openmp on beowulf. In *INNS International Conference on Big Data (INNS BIG DATA)*, 2015
- C034** E. Fumeo, L. Oneto, and D. Anguita. Condition based maintenance in railway transportation systems

- based on big data streaming analysis. In *INNS International Conference on Big Data (INNS BIG DATA)*, 2015
- C033** L. Oneto and D. Anguita. Learning hardware friendly classifiers through algorithmic risk minimization. In *Italian Workshop on Neural Network (WIRN)*, 2015
- C032** L. Oneto, A. Ghio, S. Ridella, and D. Anguita. Shrinkage learning to improve svm with hints. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2015
- C031** L. Oneto, A. Ghio, S. Ridella, and D. Anguita. Support vector machines and strictly positive definite kernel: The regularization hyperparameter is more important than the kernel hyperparameters. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2015
- C030** L. Oneto, A. Ghio, S. Ridella, and D. Anguita. Fast convergence of extended rademacher complexity bounds. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2015
- C029** A. Coraddu, L. Oneto, F. Baldi, and D. Anguita. A ship efficiency forecast based on sensors data collection: Improving numerical models through data analytics. In *IEEE Genova OCEANS'15 MTS*, 2015
- C028** M. Vahdat, L. Oneto, A. Ghio, D. Anguita, M. Funk, and M. Rauterberg. Advances in learning analytics and educational data mining. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2015
- C027** M. Vahdat, L. Oneto, A. Ghio, D. Anguita, M. Funk, and M. Rauterberg. Human algorithmic stability and human rademacher complexity. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2015
- C026** L. Oneto, B. Pilarz, A. Ghio, and D. Anguita. Model selection for big data: Algorithmic stability and bag of little bootstraps on gpus. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2015
- C025** A. Coraddu, L. Oneto, A. Ghio, S. Savio, M. Figari, and D. Anguita. Machine learning for wear forecasting of naval assets for condition-based maintenance applications. In *IEEE International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles (ESARS)*, 2015
- C024** L. Oneto, A. Ghio, S. Ridella, J. L. Reyes-Ortiz, and D. Anguita. Out-of-sample error estimation: the blessing of high dimensionality. In *IEEE International Conference on Data Mining, International Workshop on High Dimensional Data Mining (ICDM)*, 2014
- C023** M. Vahdat, L. Oneto, A. Ghio, G. Donzellini, D. Anguita, M. Funk, and M. Rauterberg. A learning analytics methodology to profile students behavior and explore interactions with deeds simulator. In *European Conference on Technology Enhanced Learning (EC-TEL)*, 2014
- C022** J. L. Reyes-Ortiz, L. Oneto, A. Ghio, D. Anguita, and X. Parra. Human activity recognition on smartphones with awareness of basic activities and postural transitions. In *International Conference on Artificial Neural Networks (ICANN)*, 2014
- C021** A. Coraddu, M. Figari, A. Ghio, L. Oneto, and S. Savio. A sustainability analytics matlab tool to predict ship energy consumption. In *International Conference on Computer Applications and Information Technology in the Maritime Industries (COMPIT)*, 2014
- C020** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. Smartphone battery saving by bit-based hypothesis spaces and local rademacher complexities. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2014
- C019** A. Ghio and L. Oneto. Byte the bullet: Learning on real-world computing architectures. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2014
- C018** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. Learning with few bits on small-scale devices: from regularization to energy efficiency. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2014
- C017** D. Anguita, A. Ghio, L. Oneto, X. Parra, and J. L. Reyes-Ortiz. Training computationally efficient smartphone-based human activity recognition models. In *International Conference on Artificial Neural Networks (ICANN)*, 2013
- C016** D. Anguita, A. Ghio, L. Oneto, J. L. Reyes-Ortiz, and S. Ridella. A novel procedure for training 11-12 support vector machine classifiers. In *International Conference on Artificial Neural Networks (ICANN)*, 2013
- C015** D. Anguita, A. Ghio, I. A. Lawal, and L. Oneto. A heuristic approach to model selection for online support vector machines. In *International Workshop on Advances in Regularization, Optimization,*

*Kernel Methods and Support Vector Machines: theory and applications (ROKS)*, 2013

- C014** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. Some results about the vapnik-chervonenkis entropy and the rademacher complexity. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2013
- C013** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. A support vector machine classifier from a bit-constrained, sparse and localized hypothesis space. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2013
- C012** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. A learning machine with a bit-based hypothesis space. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2013
- C011** D. Anguita, A. Ghio, L. Oneto, X. Parra, and J. L. Reyes-Ortiz. A public domain dataset for human activity recognition using smartphones. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2013
- C010** D. Anguita, A. Ghio, L. Oneto, X. Parra, and J. L. Reyes-Ortiz. Human activity recognition on smartphones using a multiclass hardware-friendly support vector machine. In *International Workshop on Ambient Assisted Living (IWAAL)*, 2012
- C009** D. Anguita, A. Ghio, L. Oneto, S. Ridella, and C. Schatten. Nested sequential minimal optimization for support vector machine. In *International Conference on Artificial Neural Networks (ICANN)*, 2012
- C008** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. Rademacher complexity and structural risk minimization: an application to human gene expression datasets. In *International Conference on Artificial Neural Networks (ICANN)*, 2012
- C007** D. Anguita, L. Ghelardoni, A. Ghio, L. Oneto, and S. Ridella. The 'k' in k-fold cross validation. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2012
- C006** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. Structural risk minimization and rademacher complexity for regression. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2012
- C005** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. The impact of unlabeled patterns in rademacher complexity theory for kernel classifiers. In *Advances in Neural Information Processing Systems (NIPS)*, 2011
- C004** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. In-sample model selection for support vector machines. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2011
- C003** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. Selecting the hypothesis space for improving the generalization ability of support vector machines. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2011
- C002** D. Anguita, A. Ghio, L. Oneto, and S. Ridella. Maximal discrepancy vs. rademacher complexity for error estimation. In *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)*, 2011
- C001** D. Anguita, A. Ghio, N. Greco, L. Oneto, and S. Ridella. Model selection for support vector machines: Advantages and disadvantages of the machine learning theory. In *IEEE International Joint Conference on Neural Networks (IJCNN)*, 2010