



## Fabio Roli

### *Curriculum Vitae*

July 2024

**Title:** Professor

**Date and place of birth:** October 7, 1962, Genoa, Italy

**Nationality:** Italian Male

**Affiliations:** University of Genova, University of Cagliari, Italy (double affiliation)

**Web** <https://sites.unica.it/pralab/people/fabio-rol/>

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### Education

M.S., Electronic Engineering, University of Genoa, Italy, 1988 (graduated with honours)

Ph.D., Electronic Engineering, University of Genoa, Italy, 1992

### Main Positions held

November 2021 - current: Professor of Computer Engineering, University of Genoa, Italy

November 2023 – current: Professor of Computer Engineering, University of Cagliari, Italy (double affiliation)

2001-October 2021: Professor of Computer Engineering, University of Cagliari, Italy

Sep 2022 – current: Honorary Distinguished Professor, Zhejiang Normal University (China)

1998-present: Director Pattern Recognition and Applications Laboratory (<https://pralab.diee.unica.it>)

2019-2022 Visiting Professor, Northwestern Polytechnical Univ., China (Shaanxi Thousand Talents Plan)

2015-present: Co-founder and R&D Manager of Pluribus One (<https://www.pluribus-one.it>)

2015, Oct.: Visiting Professor, Huazhong University of Science and Technology, China

2014, Oct.: Visiting Professor, Huazhong University of Science and Technology, China

2012, July: Visiting Professor, South China University of Technology, China

2008, Oct.: Visiting Professor, Nanjing University, China

2007-2011: Director of the Laboratory of Ambient Intelligence of the Sardinia DistrICT, Italy

2007-2008: Co-director of the Research Centre of the Distance Learning University of Sardinia, Italy

2001-2005: Member of the advisory board of the joint research laboratories (ICE Labs) between Tiscali company and the Dept. of Electrical and Elec. Eng. of the Univ. of Cagliari, Italy

1998-2000: Associate Professor of Computer Engineering, University of Cagliari, Italy

1995-1997: Assistant Professor of Computer Engineering, University of Cagliari, Italy

1994-1995: Adjunct Professor of Computer Engineering, University of Trento, Italy

1993-1995: Post Doctoral Fellow, University of Genoa, Italy

1988-1990: Research Fellow, University of Genoa, Italy

### Research interests and impact

Fabio Roli's research over the past twenty-eight years has addressed the design of **pattern recognition** and **machine learning** systems in the context of real **security** applications. He has provided outstanding contributions to the fields of **ensemble learning** and **adversarial machine learning**, and he has played a leading role in the establishment and advancement of this research themes. Prof. Roli is one of the **pioneers** of the use of **machine learning** for **computer security**. He is often invited to give keynote speeches and tutorials on adversarial machine learning and machine learning for cybersecurity applications. He is (or has been) the PI of dozens of R&D projects, including the leading European projects on Security & Privacy CyberRoad and ILLBuster. Prof. Roli has currently published **119 journal articles** on his research topics and many of his papers are frequently cited. His current **h-index** is **80** according to Google Scholar (July 2024), and his papers collected 26391 citations.

Prof. Roli recently talked about his career and his main scientific contributions on the receipt of the "Pierre Devijver Award". Video of his talk is available here: <https://www.youtube.com/watch?v=HbRLz1qKWKI&t=1s>

**Research statement**

My research goal is to address fundamental issues for the design of future AI systems, in the context of real security applications. (“The master of the pattern recognition art makes little distinction between theory and practice”, F. Roli ©)

**Research impact**

Total citations (Google Scholar): 26391

h-index (Google Scholar): 80

i10-index Google Scholar): 272

**Top 2% most cited scientists**

Prof. Roli is in the Stanford University list of the top 2% most cited scientists in the world (<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000918>)

**Top Italian Scientists**

Prof. Roli is one of the most cited Italian computer scientists

([https://topitalianscientists.org/tis/3558/Fabio\\_Roli\\_Top\\_Italian\\_Scientist\\_in\\_Computer\\_Sciences](https://topitalianscientists.org/tis/3558/Fabio_Roli_Top_Italian_Scientist_in_Computer_Sciences))

**Top Scientists Ranking for Computer Science**

Prof. Roli is in the Top Scientists Ranking for Computer Science (<https://research.com/u/fabio-rol>)

**Student mentoring and leadership**

Prof. Roli has advised 40 doctoral students over his career and is currently supervising five more. In 1995, few years after his Ph.D., he moved to the University of Cagliari where he founded from scratch the Pattern Recognition and Applications laboratory (<https://pralab.dice.unica.it>), which is now a world-class research lab with 30 staff members including six tenured Faculty members. In 2007, he created the Laboratory of Ambient Intelligence of the Sardinia DistrICT, within the Sardinia Scientific and Technology Park in Italy. In 2015, he co-founded Pluribus One, a research-intensive startup company that develops computer security products using AI technologies (<https://www.pluribus-one.it>). He is now co-leading the SmartLab at the University of Genova (<https://www.smartlab.unige.net>).

**Selected awards**

Pierre Devijver Award, 2020 ([https://iapr.org/fellowsandawards/awards\\_devijver.php](https://iapr.org/fellowsandawards/awards_devijver.php))

Fellow of the IEEE, 2012

Fellow of the International Association for Pattern Recognition, 2004

(<https://iapr.org/fellowsandawards/index.php>).

2022 Fellow of the Asia-Pacific Artificial Intelligence Association (AAIA).

2020 Pattern Recognition Medal

Top 2% most cited scientists (<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000918>)

**Selected research grants**

- Data mining for the management of telecommunication networks, FST-Atlantis s.r.l., 1998, 14.460 euro.
- Neural networks for the analysis of food products, INFORSUD-Bull Italia, 1999-2000, 52.000 Euro.
- Pattern recognition for the management of telecommunication networks, 2001-2002, FST-Atlantis s.r.l., 25.822 Euro
- Pattern recognition for fault diagnosis in analogical circuits, Ansaldo Segnalamento Ferroviario SpA, 2001-2003, 258.000 Euro.
- Pattern recognition for security in computer networks, March 2001 – March 2002, 52.000 Euro.
- Pattern recognition for fault diagnosis in analogical circuits, Consorzio Ricerche Innovative per il Sud, 2002–2003, 77.469 Euro.
- Fusion of pattern recognition algorithms for fault diagnosis in analogical circuits, Ansaldo Segnalamento Ferroviario Spa, 2003, 100.000 Euro.
- Biometric recognition in sky resorts, Cap Research srl, 2003-2004, 58.000 Euro.
- TRACE, Identification and tracking of electronic devices, Ansaldo Segnalamento Ferroviario Spa, 2005, 50.000 Euro.

- SAFENET, Advanced technologies for Internet security, Tiscali Services SpA, 2005-2007, 300.000 Euro.
- Distributed architectures for multi-sensor surveillance, Elsas SpA, 2006-2007, 172.100 Euros.
- Multi-input processing and recognition for surveillance of wide areas, Vitrociset S.p.A., 2006-2007, 280.000 Euro.
- Infrared face recognition, Regione Autonoma della Sardegna, 2008, 58.000 Euro.
- Biometric recognition for access control, Regione Autonoma della Sardegna, 2008, 120.000 Euro.
- Pattern recognition for quality control, CONDOMETT S.r.l., 2008, 25.000 Euro.
- Pattern recognition for quality control, CONDOMETT SARDA S.r.l., 2008, 25.000 Euro.
- Multi-sensor processing and recognition for the analysis of animal behaviour, Regione Autonoma della Sardegna, 2008, 22.500 Euro.
- Document analysis, STI SpA, 2008-2009, 58.000 Euro.
- Advanced technologies for Internet security, funded by Tiscali Services SpA, 2005-2008, 300.000 Euros.
- Multi-input processing and recognition for surveillance of wide areas, funded by Vitrociset S.p.A., 2006-2008, 280.000 Euros.
- TABULA RASA, Trusted biometrics under spoofing attacks, funded by European Union, FP7 project, 2010-2013, 180.469 euros.
- Fingerprint liveness detection, funded by Cross Match Technologies Inc, 2010, 80.000 euros.
- Secure Computer Vision and Pattern Recognition, funded by Regione Autonoma della Sardegna, 2012-2015, 280.000 Euros
- Advanced Video Content Analysis, funded by Regione Autonoma della Sardegna, 2012-2015, 435.150 Euros.
- Management and Authenticity Verification of multimedia contents, funded by European Union, FP7 project, 2013-2015, 350.000 Euros
- Buster of illegal contents spread by malicious computer networks, funded by European Union, DG HOME, 2014-2016, 120.000 euros
- Development of the Cybercrime and Cyber-terrorism Research Roadmap, funded by European Union, FP7 project, 2014-2016, 120.000 Euros
- Advanced social engineering and vulnerability Assessment, funded by European Union, H2020, 2015-2019 185.000 euros
- LETS CROWD (Law Enforcement agencies human factor methods and Toolkit for the Security and protection of CROWDs in mass gatherings), funded by European Union, H2020, 2017-2019, 300.000 euros.
- RexLearn, Reliable and Explainable Adversarial Machine Learning, PRIN 2017, Ministry of Italian University and Research, 260.492 euros
- European Lighthouse on Secure and Safe AI NETWORK OF EXCELLENCE FUNDED BY THE EUROPEAN UNION, 312.500 euros (<https://elsa-ai.eu/>)
- TRITON, Generative Automation of Security Penetration Tests, funded by European Union, Horizon Europe Program, European Defence Fund, 2024-2027, 484.375 euros.

### University teaching

- 2022- present: Trustworthy Artificial Intelligence
- 2022- present: Machine Learning and Data Analysis
- 2022- present: Database Systems
- 1996-present: Computer Architectures (undergraduate course)
- 1998-2010: Artificial Intelligence (graduate semester course)
- 2001-2015: Pattern Recognition (graduate semester course)
- MSc and PhD course on “Multiple Classifier Systems”, Nanjing University, China, October 7-15, 2008
- MSc and PhD course on “Elements of Statistical Pattern Recognition”, South China University of Technology, China, 19-27 July 2012
- MSc and PhD course on “Elements of Statistical Pattern Recognition”, Huazhong University of Science and Technology, China, 20-27 October 2014
- MSc and PhD course on “Machine Learning”, Huazhong University of Science and Technology, China, 7-14 October 2015
- MSc online course on “Machine Learning”, Xidian University, China, 17 June – 23 June 2020

- MSc online course on “Machine Learning”, Northwestern Polytechnical Univ., China, 20 July – 7 August 2020

### Selection of tutorials and short courses

- Tutorial on “Fusion of Multiple Classifiers”, International Conference Fusion 2002, Annapolis, Maryland, USA, July 2002.
- Short course on “Linear Combiners of Pattern Classifiers”, E.R. Caianiello, Summer School on “Ensemble Methods for Learning Machines”, Vietri sul Mare, Salerno, Italy, September 2002
- Short course on “Multiple Classifier Systems”, Italian School on Machine Vision, Vietri sul Mare, Salerno, Italy, 11-15 November 2002
- Short course on “Fusion of Multiple Pattern Classifiers”, NATO Summer School on Data Fusion for Situation Monitoring, Incident Detection, Alert and Response Management, Yerevan, Armenia, August 2003
- Tutorial on “Fusion of Multiple Pattern Classifiers”, National Conference of the Italian Association for Artificial Intelligence, Pisa, Italy, 23-26 September 2003
- Short course on “Pattern Recognition”, Annual, Italian, School for PhD Students in Computer Science, Benevento, Italy, 13-22 September 2004
- Short Course on “Multiple Classifier Fusion in Biometrics”, 6th Summer School for Advanced Studies on Biometrics for Secure Authentication: Multimodal Systems and Identity Management”, Alghero, Italy, 8-12 June, 2009.
- Tutorial on “Multiple Classifier Systems”, International School “The Analysis of Patterns”, Cagliari, Italy, September 27th - October 3rd, 2009
- Tutorial on “Multiple Classifier Systems”, ICMLC 2010, Int. Conference on Machine Learning and Cybernetics, Qingdao, China, 11-14 July 2010
- Tutorial on “Adaptive Biometric Systems”, 2011 IEEE Workshop on Computational Intelligence in Biometrics and Identity Management, April 11-15, Paris, France.
- Tutorial on “Adaptive biometric systems that can improve with use”, 2011 IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2011), Anchorage, Alaska, October 9-12, 2011
- Tutorial on Multiple Classifier Systems, 2012 IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2012), Seoul, Korea, October 14, 2012.
- Corso Breve su “Adversarial Pattern Recognition”, Scuola la Visione delle Macchine 2014, 18 Giugno 2014
- Tutorial on “Adversarial Machine Learning”, IEEE SMC 2015 Int. Conference, Hong Kong, 9 October 2015.
- Tutorial on “Adversarial Pattern Recognition”, 2016 Int. Conference on Pattern Recognition, Cancun, Mexico, Dec. 4<sup>th</sup>, 2016
- Tutorial on “Data-driven Pattern Recognition: Philosophical, Historical, and Technical Issues”, 2016 Int. Conference on Pattern Recognition, Cancun, Mexico, Dec. 4<sup>th</sup>, 2016
- Short course on “Adversarial Machine Learning”, IEEE SPS Winter School on Security and Privacy Issues in Biometrics, Abu Dhabi, January 2017
- Short course on “Machine Learning”, International 2017 Summer School on Signal Processing Meets Deep Learning, Capri, Italy, September 2017
- Short course on “Adversarial Machine Learning” International Summer School on Machine Learning, Benicassim, Spain, June 2017
- Tutorial on “Adversarial Pattern Recognition”, Int. Conference on Computer Vision, Venice, Italy, 22 Oct. 2017
- Tutorial on “Adversarial Machine Learning”, IJCAI-ECAP’18, Stockholm, Sweden, July 15, 2018
- Short course on “Adversarial Machine Learning”, 3rd International Summer School on Deep Learning 2019, Warsaw, Poland, July 24-25, 2019
- Short course on “Adversarial Machine Learning”, DeepLearn 2022 Winter, 5th International School on Deep Learning, Bournemouth, UK · January 17-21, 2022, <https://irdta.eu/deeplearn/2022wi/>

### Editorial activities

Editorial Board Member, Science China Information Sciences

Advisory editor International Journal Machine Learning and Cybernetics

Associate editor of the Pattern Recognition Letters journal (until 2011)

Associate editor of the Pattern Analysis and Applications journal

Associate editor of the Electronic Letters on Computer Vision and Image Analysis (until June 2008)

Associate editor of the Information Fusion journal (until 2005)

Associate editor of the Journal of Advances in Information Fusion (until August 2008)

### **Leadership in Scientific Associations**

President of the Italian Group of Researchers in Pattern Recognition (June 2012 – 2016)

Chairman of the Technical Committee on Statistical Techniques in Pattern Recognition of the International Association for Pattern Recognition (August 2004 – August 2008)

Member of the Governing Board of the International Association for Pattern Recognition (June 2008 – June 2012)

Member of the Governing Board of the IEEE Systems, Man, and Cybernetics Society (2010-2014)

Member of the NATO panel for Information and Communications Security, NATO Science for Peace and Security (2008 – 2011)

### **General Chairman of conferences and workshops**

- International workshop on Connectionist Methods and Architectures for Pre-processing and Analysis of Remote-Sensing Images and Data, Cagliari, Italy, 24-25 October 1996.
- First International Workshop on Multiple Classifier Systems (MCS 2000), Cagliari, Italy, 21-23 June, 2000
- Second International Workshop on Multiple Classifier Systems (MCS 2001), Guilford, UK, 2-4 July, 2001
- Third International Workshop on Multiple Classifier Systems (MCS 2002), Cagliari, Italy, 24-26 June, 2002
- Fourth International Workshop on Multiple Classifier Systems (MCS 2003), Guildford, UK, 11-13 June, 2003
- Fifth International Workshop on Multiple Classifier Systems (MCS 2004), Cagliari, Italy, 9-11 June 2004
- Sixth International Workshop on Multiple Classifier Systems (MCS 2005), Monterey Bay, California, USA, 13-15 June 2005
- Seventh International Workshop on Multiple Classifier Systems (MCS 2007), Prague, Czech Republic, 23-25 May, 2007
- 13<sup>th</sup> International Conference on Image Analysis and Processing (ICIAP 2005), Cagliari, Italy, 6-8 September, 2005
- International workshop on statistical techniques in pattern recognition, S+SSPR 2006, Hong Kong, China, 17-19 August, 2006
- International workshop on statistical techniques in pattern recognition, S+SSPR 2008, Orlando, Florida, USA, 4-6 December, 2008
- Eighth International Workshop on Multiple Classifier Systems (MCS 2009), Reykjavik, Iceland, 10-12 June, 2009
- International School “The Analysis of Patterns”, Cagliari, Italy, September 27<sup>th</sup> - October 3<sup>rd</sup>, 2009
- 9<sup>th</sup> International Workshop on Multiple Classifier Systems (MCS 2010), Cairo, Egypt, 7-9 April, 2010
- 10<sup>th</sup> International Workshop on Multiple Classifier Systems (MCS 2011), Naples, Italy, 15-17 June, 2011
- Dagstuhl Perspectives Workshop on Machine Learning Methods for Computer Security, Dagstuhl, Germany, 10-14 Sept. 2012
- 11<sup>th</sup> International Workshop on Multiple Classifier Systems (MCS 2013), Nanjing, China, 15-17 May, 2013.
- 12th International Workshop, MCS 2015, Günzburg, Germany, June 29 - July 1, 2015
- The eighth International Conference on Image Processing Theory, Tools and Applications (IPTA 2018) November 7-10, 2018, Xi'an, China.

### **Selection of invited, keynote, plenary speaker talks**

1. Invited speaker, International Conference “The potential of neuro-computing in regional science”, Vienna, Austria, September 11-12, 1996
2. Invited speaker, “Multiple Classifier Systems”, Italian School on Machine Vision, Vietri sul Mare, Salerno, Italy, 11-15 November 2002
3. Invited speaker, “Multiple Expert Fusion and Information Fusion in Biometrics”, Third COST 275 Workshop on Biometric over the internet, Hatfield, UK, 27-28 October 2005.
4. Invited speaker, “Image Spam Filtering”, I-techpartner Software Forum, Porto, Portugal, 5-6 December 2007.
5. Plenary speaker, “Adversarial pattern classification”, ICMLC 2009, Int. Conference on Machine Learning and Cybernetics, Boading, Hebei, China, 12-15 July 2009
6. Plenary speaker, “Adversarial pattern classification”, Int. Workshop on Computational Intelligence, Pattern Recognition, and Classifier Systems, University of Cairo, Egypt, April 10, 2010.

7. Invited speaker, “Alan Turing, spam mail, pattern recognition: an intriguing triangle”, the 2010 IEEE SMC Lecture Series in Guangzhou, China, July 9, 2010.
8. Plenary speaker, “Pattern classifiers under attack”, 2011 Irish Machine Vision and Image Processing Conference, Dublin, Ireland, 7-9 September 2011
9. Invited speaker, “Personal and Time Management for Young Scientists”, The UK-Ireland IEEE-SMC-Celebration Lecture Series 2013 on “The Making of an Academic”, University of Ulster Belfast Campus, 25th March, 2013.
10. Invited speaker, “The adversarial relationship between classifier and patterns in the cyber-world”, The UK-Ireland IEEE-SMC 2013 Workshop on "Understanding the Cyber World: A Rendez-Vous for Machine Learning, Pattern Recognition, and Cybernetics", University of Ulster Belfast Campus, 26th March, 2013.
11. Invited speaker, “Fingerprint liveness detection: lessons learned at PRA laboratory”, International Fingerprint Recognition Group, Maale Hachamisha, Jerusalem, Israel, June 9-14, 2013
12. Plenary speaker, “Pattern Recognition Systems under Attack”, Eighteenth Iberoamerican Congress on Pattern Recognition, CIARP 2013, Cuba, 20-23 Nov. 2013.
13. Plenary speaker, “The rise of adversarial patterns in the cyber-physical space”, CYBCONF 2015, 2nd IEEE International Conference on Cybernetics, Gdynia, Poland, 24 to 26 of June 2015.
14. Plenary speaker, “Adversarial pattern recognition”, 5th International Conference on Pattern Recognition Applications and Methods, ICPRAM 2016, Rome, 24-26 Feb. 2016.
15. Invited speaker, “Some thoughts on safety of machine learning”, HUML 2016, The Human Use of Machine Learning: An Interdisciplinary Workshop, Venice, 16<sup>th</sup> Dec. 2016
16. Invited speaker, “L’intelligenza artificiale è sicura?”, Security Summit 2018, Roma, 6-7 Giugno 2018.
17. Plenary talk, “Adversarial Machine Learning”, The 16th Chinese Workshop on Machine Learning and applications (MLA 2018), Nanjing, China, Nov. 3-5 2018
18. Invited speaker, “Cybersecurity after the Rise of Adversarial Machine Learning”, 2019 Huawei Security Technology SAB Summit, Munich, 10-11 July 2019
19. Invited speaker, “Cybersecurity after the Rise of Adversarial Machine Learning”, Int. Workshop on Machine Learning for Cybersecurity, Loughborough (UK), March 11th 2019
20. Keynote speaker, “The Security of Machine Learning”, Online Huawei Cloud Service Summit 2020, 4-6 Nov. 2020
21. Invited speaker, “From known knowns to unknown unknowns in AI: Historical and Technical Issues”, Online BERLIN AvH WORKSHOP QUANTUM COMPUTING&LOGIC, 15h Jan. 2021
22. Pierre Devijver Award Lecture (plenary speaker), “From known knowns to unknown unknowns: a few reflections on my journey into pattern recognition”, Online IAPR Joint International Workshops on Statistical techniques in Pattern Recognition (SPR 2020) and Structural and Syntactic Pattern Recognition (SSPR 2020), 21-22 Jan. 2021
23. Plenary speaker, “From known knowns to unknown unknowns in AI: Historical and Technical Issues”, 2021 13th International Conference on Bioinformatics and Biomedical Technology (ICBBT 2021) and 2021 International Workshop on Frontiers of Graphics and Image Processing, Xi’an, China, 21-23 May, 2021
24. Plenary speaker, TII ABU DHABI JULY 2022
25. Plenary speaker, Deepfake Video Generation and Detection Paris 23 June 2022
26. Plenary speaker, KU Leuven - PHD School on Security & Privacy in the age of AI Sept. 2022
27. Invited speaker, EURASIP Journal on Image and Video Processing Webinar July 21st, 2022
28. Plenary speaker, HUAWEI AI Security Workshop at Cyber Security Week Brussels 22nd June 2023

## Publications

Number of papers in refereed int. journals: 119

Number of edited books: 14

Number of book chapters: 16

Number of papers in refereed international conferences: 180

A complete list of Fabio Roli’s papers is available here:

<https://scholar.google.it/citations?user=sCypmFAAAAAAJ&hl=it>

## Journal articles

1. Dmitrijs Trizna, Luca Demetrio, Battista Biggio, Fabio Roli, Nebula: Self-Attention for Dynamic Malware Analysis, IEEE Transactions on Information Forensics & Security, accepted, 2024, (Quartile in Computer Science Scimago: **Q1**)

2. Giulia Orrù, Jie Gao, Marco Micheletto, Sara Concas, Xiaoyi Feng, Gian Luca Marcialis, Fabio Roli, Texture and Artifact Decomposition for Improving Generalization in Deep-learning-based Deepfake Detection, *Engineering Applications of Artificial Intelligence*, Volume 133, Part C, July 2024, <https://doi.org/10.1016/j.engappai.2024.108450> (Quartile in Computer Science Scimago: **Q1**)
3. Li, Zhishan; Chen, Hongxu; Biggio, Battista; He, Yifan; Cai, Haoran; Roli, Fabio; Xie, Lei, Towards Effective Traffic Sign Detection via Two-Stage Fusion Neural Networks, *IEEE Transactions on Intelligent Transportation Systems*, 2024, pag. 1-12, Print ISSN: 1524-9050, Online ISSN: 1558-0016 Digital Object Identifier: 10.1109/ITITS.2024.3373793, (Quartile in Computer Science Scimago: **Q1**)
4. Giulia Boato; Francesco G.B. De Natale; Gianluca De Stefano; Cecilia Pasquini; Fabio Roli, Adversarial mimicry attacks against image splicing forensics: an approach for jointly hiding manipulations and creating false detections, *Pattern Recognition Letters*, 2024 (accepted Jan 2024) <https://doi.org/10.1016/j.patrec.2024.01.023> (Quartile in Computer Science Scimago: **Q1**)
5. Yang Zheng; Luca Demetrio; Antonio Emanuele Cinà; Xiaoyi Feng; Zhaoqiang Xia; Xiaoyue Jiang; Ambra Demontis; Battista Biggio; Fabio Roli, Hardening RGB-D Object Recognition Systems against Adversarial Patch Attacks, *Information Sciences*, in press 2023 (Quartile in Computer Science Scimago: **Q1**)
6. Emanuele Ledda; Giorgio Fumera; Fabio Roli, Dropout Injection at Test Time for Post Hoc Uncertainty Quantification in Neural Networks, *Information Sciences*, in press 2023 (Quartile in Computer Science Scimago: **Q1**)
7. Lei Li; Zongwei Li; Huijian Han; Lei Yang; Xiaoyi Feng; Fabio Roli, Wooden Spoon Crack Detection by Prior Knowledge-Enriched Deep Convolutional Network, *Engineering Applications of Artificial Intelligence*, 2023, in press, (Quartile in Computer Science Scimago: **Q1**)
8. Simone Maurizio La Cava, Giulia Orrù, Martin Drahansky, Gian Luca Marcialis, Fabio Roli, 3D Face Reconstruction: the Road to Forensics, *ACM Computing Surveys*, *ACM Computing Surveys*, Volume 56, Issue 3, Article No.: 77, pp 1–38, 2023, <https://doi.org/10.1145/3625288>
9. Yang Zheng; Xiaoyi Feng; Zhaoqiang Xia; Xiaoyue Jiang; Maura Pintor; Ambra Demontis; Battista Biggio; Fabio Roli, Stateful Detection of Adversarial Reprogramming, *Information Sciences*, in press 2023 (Quartile in Computer Science Scimago: **Q1**)
10. Antonio Emanuele Cinà, Kathrin Grosse, Ambra Demontis, Battista Biggio, Fabio Roli, Marcello Pelillo, Machine Learning Security against Data Poisoning: Are We There Yet?, *Computer, SI on Trustworthy AI*, in press, 2023 10.1109/MC.2023.3299572
11. Yang Zheng, Xiaoyi Feng, Zhaoqiang Xia, Xiaoyue Jiana, Ambra Demontis, , Maura Pintor, Battista Biggio, Fabio Roli, Why Adversarial Reprogramming Works, When It Fails, and How to Tell the Difference, *Information Sciences*, in press 2023 (Quartile in Computer Science Scimago: **Q1**)
12. ANTONIO EMANUELE CINÀ, KATHRIN GROSSE, AMBRA DEMONTIS, SEBASTIANO VASCON, WERNER ZELLINGER, BERNHARD A. MOSER, ALINA OPREA, BATTISTA BIGGIO, MARCELLO PELILLO, FABIO ROLI, Wild Patterns Reloaded: A Survey of Machine Learning Security against Training Data Poisoning, *ACM Computing Surveys*, Volume 55 Issue 13s, 2023, (Quartile in Computer Science Scimago: **Q1**)
13. Maura Pintor, Daniele Angioni, Angelo Sotgiu, Luca Demetrio, Ambra Demontis, Battista Biggio, Fabio Roli, ImageNet-Patch: A Dataset for Benchmarking Machine Learning Robustness against Adversarial Patches, *Pattern Recognition*, Volume 134, February 2023, <https://doi.org/10.1016/j.patcog.2022.109064> (Quartile in Computer Science Scimago: **Q1**)
14. Lu Zhang; Lambotharan, Sangarapillai; Zheng, Gan; Liao, Guisheng; AsSadhan, Basil; Roli, Fabio, Attention-based Adversarial Robust Distillation in Radio Signal Classifications for Low-Power IoT Devices, *IEEE Internet of Things Journal*, FEBRUARY 1, 2023, Volume: 10, Issue: 3, Page(s): 2646-2657, Print ISSN: 2327-4662, Online ISSN: 2327-4662, Digital Object Identifier: 10.1109/JIOT.2022.3215188
15. Roberto Casula, Marco Micheletto, Giulia Orrù, Gian Luca Marcialis, Fabio Roli, Towards realistic fingerprint presentation attacks: the ScreenSpoof method, *Pattern Recognition Letters*, 2022
16. Sara Concas, Simone Maurizio La Cava, Giulia Orrù, Carlo Cuccu, Jie Gao, Xiaoyi Feng, Gian Luca Marcialis, Fabio Roli, Analysis of Score-Level Fusion Rules for Deepfake Detection, *Applied Sciences*, MDPI, 2022, 12(15), 7365; <https://doi.org/10.3390/app12157365>
17. Luca Demetrio, Battista Biggio, Fabio Roli, Practical Attacks on Machine Learning: A Case Study on Adversarial Windows Malware, *IEEE Security & Privacy*, 2022, doi: 10.1109/MSEC.2022.3182356
18. Zhang, Lu; Lambotharan, Sangarapillai; Zheng, Gan; Liao, Guisheng; Demontis, Ambra; Roli, Fabio, A Hybrid Training-time and Run-time Defense Against Adversarial Attacks in Modulation Classification, *IEEE Wireless Communications Letters*, Publication Date: JUNE 2022, Volume: 11, Issue: 6, Page(s): 1161-1165, Print ISSN: 2162-2337, Online ISSN: 2162-2345, Digital Object Identifier: 10.1109/LWC.2022.3159659

19. Stefano Melacci, Gabriele Ciravegna, Angelo Sotgiu, Ambra Demontis, Battista Biggio, Marco Gori, and Fabio Roli, Domain Knowledge Alleviates Adversarial Attacks in Multi-Label Classifiers, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, in press, 2022, 10.1109/TPAMI.2021.3137564, (Quartile in Computer Science Scimago: **Q1**)
20. Marco Micheletto, Gian Luca Marcialis, Giulia Orrù, and Fabio Roli, Fingerprint recognition with embedded presentation attacks detection: are we ready?, *IEEE Transactions on Information Forensics & Security*, in press, 2021, (Quartile in Computer Science Scimago: **Q1**)
21. Marco Melis, Michele Scalas, Ambra Demontis, Davide Maiorca, Battista Biggio, Giorgio Giacinto, Fabio Roli, Do Gradient-based Explanations Tell Anything About Adversarial Robustness to Android Malware?, *International Journal of Machine Learning and Cybernetics*, in press, 2021 (Quartile in Computer Science Scimago: **Q1**)
22. LUCA DEMETRIO, SCOTT E. COULL, BATTISTA BIGGIO, GIOVANNI LAGORIO, ALESSANDRO ARMANDO, FABIO ROLI, Adversarial EXEmPles: A Survey and Experimental Evaluation of Practical Attacks on Machine Learning for Windows Malware Detection, *ACM Transactions on Privacy and Security*, in press, 2021 (Quartile in Computer Science Scimago: **Q1**)
23. Giulia Orrù, A. Panzino, Gian Luca Marcialis, Fabio Roli, EEG personal recognition based on "qualified majority" over signal patches, *IET Biometrics*, August 2021, <https://doi.org/10.1049/bme2.12050> (Quartile in Computer Science Scimago: **Q2**)
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