

Nicolò Antonio Cesa-Bianchi

Born 18.6.1963. Milan, Italy.

Current employer

Università degli Studi di Milano, Milano, Italy.
Position: Full professor (since 2002).

Address

Dipartimento di Informatica phone: +39-02-503-16280
Università degli Studi di Milano email: nicolo.cesa-bianchi@unimi.it
via Celoria 18, 20133 Milano, Italy web: www.cesa-bianchi.net

Education

1993 Ph.D. in Computer Science, Università degli Studi di Milano, Milano, Italy.

1988 MS, Computer Science, Università degli Studi di Milano, Milano, Italy.

Main areas of interest

Machine learning, online learning, multi-armed bandits, analysis of algorithms, algorithmic game theory.

Publications: 45 papers in international scholarly journals (including 3 papers in JACM, 3 papers in SIAM J. on Computing, 8 papers in IEEE Trans. Information Theory) and 87 papers in international conferences (including 2 papers in STOC, 2 papers in FOCS, 25 papers in COLT, 16 papers in NIPS, 6 papers in ICML).

Monographs:

S. Bubeck and N. Cesa-Bianchi Regret analysis of stochastic and nonstochastic multi-armed bandit problems. *Foundations and Trends in Machine Learning*, 5(1)1–122, 2012.

N. Cesa-Bianchi and G. Lugosi. *Prediction, Learning, and Games*. Cambridge University Press, 2006.

Citations: 14300+, H-index 44 (Google Scholar)

Professional activities

Membership in editorial boards

2012– Associate editor for Information and Inference

2011–2014 Associate editor for IEEE Transactions on Information Theory

2009–2013 Action editor for Journal of Machine Learning Research

2005–2011 Action editor for Machine Learning journal.

2001–2005 Associate editor for Machine Learning journal.

Membership in committees

2018– Member of the steering committee of the CINI Italian Laboratory for Artificial Intelligence and Intelligent Systems.

2018 Chair of the evaluation panel for the INRIA theme “Optimization, machine learning and statistical methods”, 14–15.3.2018, Rungis, Francia.

2009–2015 Panel member for the IDEAS programme (Advanced Grants) of the European Research Council.

2006–2009 President of the Association for Computational Learning.

2016–2019 Member of the steering committee for the Conference on Algorithmic Learning Theory.

2000–2003, 2014–2016 Member of the steering committee for the Conference on Computational Learning Theory.

1997–2000 Member of the steering committee for the European Conf. on Computational Learning Theory.

Program committees (area chair or program chair)

2018 Co-chair of the 32nd Annual Conference on Neural Information Processing Systems (NIPS), 3–8.12.2018, Montréal, Canada.

2016 Area chair of the 33rd International Conference on Machine Learning (ICML), 19–24.6.2016, New York City, USA.

2013 Area chair of the 30th International Conference on Machine Learning (ICML), 16–21.6.2013, Atlanta, USA.

2009 Area chair of the 23rd Annual Conference on Neural Information Processing Systems (NIPS), 7–12.12.2009, Vancouver, Canada.

2007 Area chair of the 21st Annual Conference on Neural Information Processing Systems (NIPS), 3–8.12.2007, Vancouver, Canada.

2002 Program co-chair of the 13th International Conference on Algorithmic Learning Theory (ALT), 24–26.11.2002, Lübeck, Germany, and co-editor of the special issue. *Theoretical Computer Science*, 350(1). Elsevier, 2006.

2000 Program co-chair of the 13th Annual Conference on Computational Learning Theory (COLT), 28.6–1.7.2000, Stanford, USA

Organization of workshops

2017 Co-organizer of the NIPS workshop on “Prioritising Online Content”, 9.12.2017, Lake Tahoe, Nevada.

2012 Co-organizer of the NIPS workshop on “Multi-Trade-offs in Machine Learning”, 7.12.2012, Lake Tahoe, Nevada.

2011 Co-organizer of the NIPS workshop on “New Frontiers in Model Order Selection”, 16.12.2011, Sierra Nevada, Spain.

2009 Co-organizer of the NIPS workshop on “Learning from Multiple Sources with Applications to Robotics”, 12.12.2009, Whistler, Canada.

Research visits

August–September 2016 Visiting researcher at Simons Institute, Berkeley, CA.

February 2013, July–August 2015 Visiting researcher at Microsoft Research New York, NY.

July–August 2012, August 2014 Visiting researcher at Microsoft Research Redmond, WA.

February 2011, July 2011 Visiting researcher at Microsoft Research New England, Cambridge, MA.

February 2007 Invited professor at École Normale Supérieure, Paris, France.

July–August 2006 Visiting faculty at Google Inc., Mountain View, California.

1993–1994 Visiting scholar, Institute for Theoretical Computer Science, Graz University, Austria.

1991–1993 Visiting scholar, University of California at Santa Cruz, CA.

Invited talks in international events (only last 10 years)

Workshop on “Modern Challenges of Learning Theory”, 23–26.4.2018, Montreal, Canada.

Google Workshop on “Algorithms and Optimization”, 2.11.2017, Zurigo, Svizzera.

Workshop on ‘Online Learning’, Turing Institute, 5.10.2017, Londra, Regno Unito.

Graph Exploitation Symposium, MIT, 16–17.5.2017, Boston, USA.

Workshop on “Machine Learning in the Real World”, 29.11.2016, Criteo, Paris.

Workshop on “Theoretical Foundations for Learning from Easy Data”, 7–11.11.2016, Lorentz Center, Leiden.

Workshop on “Resource Trade-offs: Computation, Communication, and Information”, 16–19.5.2016, Institute for Mathematics and its Applications, Minneapolis, USA.

Market Algorithms Workshop, 28.1.2016, Google, New York, USA.

Workshop on Learning, 17–20.11.2015, Institute for Mathematical Sciences, Singapore.

Workshop on “Sequential learning and applications and Applications”, 9–10.11.2015, Université de Toulouse, France.

Workshop on “Stochastic learning”, 38th Conference on Stochastic Processes and their Applications, 13–17.7.2015, Oxford, United Kingdom.

Symposium on “Learning, Algorithms and Complexity”, 5–9.1.2015, Bangalore, India.

Workshop on “Online Algorithms and Learning”, 17–21.11.2014, Leiden, The Netherlands.

Colloquium Polaris, 3.7.2014, Lille, France.

YES Workshop – Stochastic Optimization and Online Learning, 26–28.3.2014, Eindhoven, The Netherlands.

Session on “Learning Theory”, 2013 IEEE Information Theory Workshop, 9–13.9.2013, Seville, Spain.

Sixth Workshop on Information Theoretic Methods in Science and Engineering, 26–29.8.2013, Tokyo, Japan.

Large-Scale Online Learning and Decision-Making Workshop, 17-19.9.2012, Windsor, England.

NIPS Workshop on Discrete Optimization in Machine Learning (DISCML), 17.12.2011, Sierra Nevada, Spain.

Machine Learning Summer School, 4–17.9.2011, Bordeaux, France.

International Conference on Adaptive and Intelligent Systems, 6–8.9.2011, Klagenfurt, Austria.

10th International Workshop on Multiple Classifier Systems, 15–17.6-2011, Naples, Italy.

28th European Meeting of Statisticians, 17–22.8.2010, Piraeus, Greece.

ACM/BCS Visions Conference, 13–16.4.2010, Edinburgh, UK.

IEEE Workshop on Automatic Speech Recognition and Understanding, 13–17.12.2009, Merano, Italy.

Machine Learning Seminar, IBM Haifa Research Lab, 7.6.2009, Haifa, Israel.

25–29.5.2009, Bordeaux, France. Conference “41èmes Journées de Statistique”, Société Française de Statistique (SFdS),

International grants

2018 Google Faculty Award

2017 Criteo Faculty Award

2014 Research Programme grant from Centre de Recerca Matemàtica, Barcelona, Spain

2011-2014 Xerox University Affairs Committee Award.

2010 Google Research Award.

2008–2012 Pattern Analysis, Statistical Modelling and Computational Learning 2 (ICT-216886), VII framework, European Commission.

2006–2009 Statistical Multilingual Analysis for Retrieval and Translation (IST-FP6-033917), VI framework, European Commission.

2003–2007 Pattern Analysis, Statistical Modelling and Computational Learning (IST-2002-506778), VI framework, European Commission.

2001–2004 Kernel Methods for Images and Text (IST-2000-25431), V framework, European Commission.

1998–2001 Neural and Computational Learning II (EP 27150), IV framework, European Commission.

PhD students

Ongoing Andrea Paudice (supervisor)

Ongoing Leonardo Cella (supervisor)

Ongoing Tommaso Renato Cesari (supervisor)

2014 Giovanni Zappella (supervisor, “Learning on Graphs: Algorithms for Classification and Sequential Decisions”)

2014 Rocco De Rosa (co-supervisor, “Confidence-based and Nonparametric Classification: Applications to Credal Classification, Online and Active Learning”)

2011 Fabio Vitale (supervisor, “Fast Learning on Graphs”)

2009 Giovanni Cavallanti (supervisor, “On Variants of Online Linear-Threshold Algorithms for Classification”)

2007 Luca Zaniboni (co-supervisor, “Sparse Online Learning Algorithms and Hierarchical Classification of Textual Documents”)

2004 Alex Conconi (supervisor, “Margin-based Online Algorithms for Text Classification”)

PhD defense committees and examinations

University of Alberta (Canada)

University College London (UK)

Université de Lille (France)

Technion University (Israel)

Ecole Normale Supérieure Paris (France)

Université Paris-Sud (France)

TELECOM ParisTech (France)

University of Southampton (UK)

Università degli Studi di Milano-Bicocca (Italy)

Jozef Stefan Institute (Slovenia)

Ecole Normale Supérieure Cachan (France)

Teaching experience

2013-2016 Head of the School of Computer Science at the University of Milan

Courses taught

Java Programming (72 hours, undergraduate)

Algorithms and Data Structures (72 hours, undergraduate)

Advanced Algorithms (48 hours, undergraduate)

Information Theory (48 hours, undergraduate)

Methods for Automated Reasoning (48 hours, undergraduate)

Statistical Methods for Machine Learning (48 hours, masters)

The web graph: structure, analysis, and classification (48 hours, masters)

Machine learning: from experts to bandits (20 hours, doctoral)

Sequential prediction (20 hours, doctoral)

Prediction, Learning, and Games (20 hours, doctoral)

Milano, October 23, 2018