

Carlo Ciliberto

Appointments

- 2018–2020 **Associate Professor**, *University College London, Computer Science Department, London UK.*
- 2018–2020 **Lecturer (Assistant Professor)**, *Imperial College London, Department of Electrical and Electronic Engineering, London UK.*
- 2017–2018 **Research Associate**, *University College London (UCL), Department of Computer Science, London UK.*
- 2013–2015 **Postdoctoral Fellow**, *Massachusetts Institute of Technology, Cambridge, MA, USA.*
- 2012–2013 **Postdoctoral Fellow**, *Istituto Italiano di Tecnologia, Genova, Italy.*

Education

- 2009–2011 **PhD Student**, *In machine learning applied to computer vision and robotics, Istituto Italiano di Tecnologia, Genova, Italy, PhD Thesis: Self-supervised Robots: A path towards Autonomous Learning.*
- 2006–2008 **Master of Science in Mathematics**, *Università Roma Tre, Rome, Italy.*
Master Thesis: The Jacobian ideal of a Hypersurface. 110/110 cum laude.
- 2003–2006 **Bachelor in Mathematics**, *Università Roma Tre, Rome, Italy.*
110/110 cum laude.

Teaching

- 2018–Present **Deep Learning**, *Imperial College London*, Postgraduate course. Introductory course to Deep Learning.
- 2017–2018 **Advanced Topics in Machine Learning**, *University College London*, Postgraduate course. Introduction to Statistical Learning Theory.
- 2014–2016 **Statistical Learning Theory**, *Massachusetts Institute of Technology*, Postgraduate course. Introduction to Statistical Learning Theory.

Grants

- 2020–2021 **Royal Society Research Grant RGS\R1\201149**, *Structured Prediction for Reliable and Efficient Meta-Learning (£20K)*, The project proposes a novel perspective on meta-learning based on structured prediction. The goal of the project is to provide theoretical guarantees for meta-learning.

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Organization of Scientific Events

- 2016 **Data Learning and Inference (DALI)**, *Machine learning workshop, Organization of the Workshop in collaboration with Prof. Lorenzo Rosasco, Prof. Thomas Hofmann, Prof. Zoubin Ghahramani, Prof. Neil Lawrence and Prof. Bernhard Schölkopf.*, Website of the event: <http://dalimeeting.org/dali2016/>.
- 2015 **Brains Minds and Machines**, *Organization of the Workshop*, Website of the event: <http://cbmm.mit.edu/bmm-workshop-sestri>.
- 2015 **Workshop: Robotics Afternoon at MBL**, *Workshop on Robotics with talks by leaders of the research in the field, Organization of the Workshop*, Website of the event: <http://lcs.mit.edu/courses/cbmss/robotics>.
- 2015 **Machine Learning Crash Course (MLCC)**, *One-week course on Machine Learning. Taught by Prof. Lorenzo Rosasco and Francesca Odone, Organization of the course*, Website of the event: <http://lcs.mit.edu/courses/mlcc/mlcc2015>.

Invited Visits

- March 2015 **Microsoft Research**, Redmond, WA, USA. (Hosted by Sharam Izadi).
- August 2015 **CBMM Summer School**, Woods Hole, MA, USA. (Hosted by Tomaso Poggio).

Other Academic Activities

- Area Chair *International Conference on Artificial Intelligence and Statistics (AISTATS) 2020, International Joint Conferences on Artificial Intelligence (IJCAI) 2020.*
- Reviewer *Neural Information Processing Systems (NeurIPS) – 2019 (Top 400 reviewers), 2018 (Top 50% reviewers), 2017 – 2015, International Conference on Machine Learning (ICML) – 2019 (Top 20% reviewers), 2018-2016, International Conference on Artificial Intelligence and Statistics (AISTATS) 2019 – 2016, International Conference on Robotics and Autonomous Systems (IROS) 2015 –2011, International Conference on Robotics and Automation (ICRA) 2015–2011, Journal of Machine Learning Research (JMLR) 2015–2019.*

Selected Publications

- 2020 **Structured Prediction for Conditional Meta-Learning**, R. Wang, Y. Demir, C. Ciliberto, *Neural Information Processing Systems (NeurIPS) 2020*.
- 2020 **The Advantage of Conditional Meta-Learning for Biased Regularization and Fine-Tuning**, G. Denevi, M. Pontil, C. Ciliberto, *Neural Information Processing Systems (NeurIPS) 2020*.
- 2020 **A General Framework for Consistent Structured Prediction with Implicit Loss Embeddings**, C. Ciliberto, L. Rosasco, A. Rudi, *Journal of Machine Learning Research (JMLR) 2020*.
- 2019 **Localized Structured Prediction**, C. Ciliberto, F. Bach, A. Rudi, *Neural Information Processing Systems (NeurIPS) 2019*.
- 2019 **Sinkhorn Barycenters with Free Support via Frank-Wolfe**, G. Luise, S. Salzo, M. Pontil, C. Ciliberto, *Neural Information Processing Systems (NeurIPS) 2019*.

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- 2019 **Online-Within-Online Meta-Learning**, *G. Denevi, D. Stamos, C. Ciliberto, M. Pontil*, Neural Information Processing Systems (NeurIPS) 2019.
- 2019 **Leveraging Low-Rank Relations Between Surrogate Tasks in Structured Prediction**, *G. Luise, D. Stamos, M. Pontil, C. Ciliberto*, International Conference on Machine Learning (ICML) 2019.
- 2019 **Learning-to-Learn Stochastic Gradient Descent with Biased Regularization**, *G. Denevi, C. Ciliberto, R. Grazzi, M. Pontil*, International Conference on Machine Learning (ICML) 2019.
- 2019 **Random Expert Distillation: Imitation Learning via Expert Policy Support Estimation**, *R. Wang, C. Ciliberto, P. Amadori, Y. Demiris*, International Conference on Machine Learning (ICML) 2019.
- 2018 **Quantum machine learning: a classical perspective**, *C. Ciliberto, M. Herbster, A. D. Ialongo, M. Pontil, A. Rocchetto, S. Severini, L. Wossnig*, Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences.
- 2018 **Manifold Structured Prediction**, *C. Ciliberto, A. Rudi, G. M. Marconi, L. Rosasco*, Neural Information Processing Systems (NeurIPS) 2018.
- 2018 **Differential properties of sinkhorn approximation for learning with wasserstein distance**, *G. Luise, A. Rudi, M. Pontil, C. Ciliberto*, Neural Information Processing Systems (NeurIPS) 2018.
- 2018 **Learning to learn around a common mean**, *G. Denevi, C. Ciliberto, D. Stamos, M. Pontil*, Neural Information Processing Systems (NeurIPS) 2018.
- 2018 **Incremental learning-to-learn with statistical guarantees**, *G. Denevi, C. Ciliberto, D. Stamos, M. Pontil*, Uncertainty in Artificial Intelligence (UAI) 2018.
- 2017 **Consistent multitask learning with nonlinear output relations**, *C. Ciliberto, A. Rudi, M. Pontil*, Neural Information Processing Systems (NeurIPS) 2017.
- 2016 **A consistent regularization approach for structured prediction**, *C. Ciliberto, L. Rosasco, A. Rudi*, Neural Information Processing Systems (NeurIPS) 2016.
- 2015 **Learning multiple visual tasks while discovering their structure**, *C. Ciliberto, L. Rosasco, S. Villa*, Computer Vision and Pattern Recognition (CVPR) 2015.
- 2015 **Convex learning of multiple tasks and their structure**, *C. Ciliberto, Y. Mroueh, T. Poggio, L. Rosasco*, International Conference on Machine Learning (ICML) 2015.

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