ANTONIO CULLA

Education

Work experience

2013–2016 **Bachelor degree in Physics**, *Sapienza University of Rome*.
Final grade: 110/110 cum laude

2010–2017 **Diploma in classical guitar**, *Santa Cecilia conservatory of Rome*.
Final grade: 7/10

2016–2018 **Master degree in Physics**, *Sapienza University of Rome*.
Final grade: 110/110 cum laude

2018–October 2021 **PhD in Physics**, *Sapienza University of Rome*.

Courses, workshops and conferences

7-13 Nov 2018 **3rd course on multiscale integration in biological systems**, *Institute Curie, Paris*.
Flash talk and poster

1-3 May 2019 **44th conference of the middle European cooperation in statistical physics** , *Kloster Seeon, Munich*.
Poster

12-14 June 2019 **Workshop: Statistical mechanics of active matter**, *GSSI, L'Aquila*.
Poster

9 Feb 2021 **Course:Machine Learning**, *Coursera - University of Stanford*, https://www.coursera.org/account/accomplishments/certificate/GKGQCL93CQ3Z.

17 March 2021 **Specialization: Deep Learning** , *Coursera - deeplearning.ai*, https://www.coursera.org/account/accomplishments/specialization/certificate/MXKDVEY99WW7.

Awards

2018-2021 PhD scholarship at Sapienza University of Rome

1st sem. **Tutor for the bachelor course "Laboratorio di calcolo"**, *Sapienza university,* 2018/2019 *Rome*.

1st sem. **Tutor for the bachelor course "Laboratorio di calcolo"**, *Sapienza university,* 2019/2020 *Rome*.

2020/2021 **1st** sem. **Teaching assistant for the bachelor course "Quantitative models for data science"**, *LUISS Guido Carli university, Rome*.

Publications

- Andrea Cavagna, Antonio Culla, Luca Di Carlo, Irene Giardina and Tomás S. Grigera. Low-temperature marginal ferromagnetism explains anomalous scale-free correlations in natural flocks.*Comptes Rendus Physique, Volume 20, Issue 4, May-June 2019,*
  Pages 319-328, https://doi.org/10.1016/j.crhy.2019.05.008
- Andrea Cavagna, Antonio Culla, Xiao Feng, Irene Giardina, Tomás S. Grigera, Willow Kion-Crosby, Stefania Melillo, Giulia Pisegna, Lorena Postiglione and Pablo Villegas. Marginal speed confinement resolves the conflict between correlation and control in natural flocks of birds. Submitted to Nature Communications https://arxiv.org/abs/2101.09748

Computer skills

Beginner	R, matlab, SQL
Intermediate	C,C++, python, Mathematica

Languages

Italian	**Mothertongue**
English	**FCE-B2**
Spanish	**DELE-B2**