Andrea Silva

EDUCATION

University of Southampton — Southampton, UK
Oct. 2017 - Jan. 2021
PhD student within the Marie Skłodowska-Curie ITN Solution
(European Project website: https://www.itn-solution.eu)

University of Milan, UniMi — Milano, Italy
Sep. 2011 - Oct. 2017
Master of Science in Theoretical Physics, 110/110 cum laude
Bachelor of Science in General Physics, 109/110

RESEARCH EXPERIENCE

PhD: Phase and Dissipative Behaviour of Complex 2D Materials — Southampton, UK
Oct. 2017 - Jan. 2021
Prof. Denis Kramer (UoS), Prof. Tomas Polcar (nCATS, UoS, CTU)
Keywords: tribology, condensate matter, multi-scale modelling, material science

Master's Thesis: Simulation of the Depinning Transition in 2D Colloid Monolayer — Milano, Italy
Nov. 2016 - Oct. 2017
Prof. Nicola Manini (UniMi), Dr. Andrea Vanossi (CNR, SISSA)
Text available at: http://materia.fisica.unimi.it/manini/theses/silva.pdf)
Keywords: tribology, soft matter, molecular dynamics, phase transition

Master 1 Stage, Pierre and Marie Curie University: Inference of Dependency Networks Between Gene Families — Paris, France
Jan. 2015 - Mar. 2015
Dr. Marco Cosentino Lagomarsino (UPMC and CNRS)
Keywords**:** *network theory, statistical inference, genomics, information theory*

CONFERENCES AND SCHOOLS ATTENDED

- Oxford Battery Modelling (virtual, Oxford, UK 2020)
- International Tribology Conference (Sendai, Japan, 2019)
- Summer School Machine Learning for Material Science (Helsinki, Finland 2019)
- Beilstein Nanotribology Symposium (Potsdam, Germany 2018)
- German Physical Society (DPG) (Berlin, Germany 2017)
- CECAM Summer School on Atomistic Simulation Techniques (Trieste, Italy 2017)

PUBLICATIONS

- B. Thorsten, **A. Silva**, N. Manini, A. Vanossi, R. Guerra, E. Tosatti, and C. Bechinger. "Experimental observation of the Aubry transition in two-dimensional colloidal monolayers." *Physical Review X* 8 (1) (2018): 011050 (https://doi.org/10.1103/PhysRevX.8.011050)
- **A. Silva**, V. E. P. Claerbout, T. Polcar, D. Kramer, and P. Nicolini, "Exploring the Stability of Twisted van der Waals Heterostructures", *ACS Appl. Mater. Interfaces* 12 (40), 45214-45221 (2020) (https://doi.org/10.1021/acsami.0c13971).
- **A. Silva**, T. Polcar, and D. Kramer, "Phase behaviour of (Ti:Mo)S_2 binary alloys arising from electron-lattice coupling", accepted at *Computational Materials Science* 186, 110044 (2021) (https://doi.org/10.1016/j.commatsci.2020.110044).

WORK EXPERIENCE

System Admin at LCM (university Linux cluster) — Milano, Italy
Jan. - Jul. 2017

OTHER INFORMATIONS

Language: Italian (native), English (full working proficiency)

Software skills: C++, Python, Bash/awk/sed scripting, LaTex, Mathematica, Microsoft Office