

Anna Braghetto

Ph.D. student

17/01/1996

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Education

- 2021 - **Physics, Ph.D.**, Università degli Studi di Padova, Dipartimento di Fisica e Astronomia.
- Ph.D. thesis:
 - Title: *Machine Learning for Physics and Physics for Machine Learning*
 - Supervisors: Prof. Enzo Orlandini, Prof. Marco Baiesi
- 2018 - 2021 **Physics Of Data, Master of Science**, Università degli Studi di Padova, Dipartimento di Fisica e Astronomia.
- Final evaluation: 110/110 with honors
 - Master thesis carried out at **Istituto Oncologico Veneto I.R.C.C.S.**:
 - Title: *Radiomics and machine learning methods for 2-year overall survival prediction in non-small cell lung cancer patients*
 - Supervisors: Prof. Marco Baiesi, Dr. Marta Paiusco
- 2015 - 2018 **Physics, Bachelor of Science**, Università degli Studi di Padova, Dipartimento di Fisica e Astronomia.
- Final evaluation: 97/110
 - Bachelor thesis carried out at **Laboratori Nazionali di Legnaro INFN**:
 - Title: *Optimization of the TRACE segmented Si-detector array for transfer reaction studies at LNL*
 - Supervisors: Dr. Alain Goasduff, Dr. Marco Siciliano

Published Papers

- Braghetto A., Marturano F., Paiusco M., Baiesi M. and Bettinelli A., Radiomics and deep learning methods for the prediction of 2-year overall survival in LUNG1 dataset. *Sci Rep* **12**, 14132 (2022). DOI: 10.1038/s41598-022-18085-z
- Braghetto A., Kundu S., Baiesi M. and Orlandini E., Machine Learning Understands Knotted Polymers. *Macromolecules*, **Article ASAP**. DOI: 10.1021/acs.macromol.2c02555. *arXiv*, DOI: 10.48550/arXiv.2212.11822
- Braghetto A., Orlandini E. and Baiesi M., Interpretable machine learning of amino acid patterns in proteins: a statistical ensemble approach. *To be submitted*. *arXiv*, DOI: 10.48550/arXiv.2303.15228

Attended Summer Schools

- 2022 **Summer School in Statistical Physics of Deep Learning**, Como, (22/06/13–22/06/17).
- 2022 **Summer School in Machine Learning for Materials Hard and Soft**, Vienna, (22/11/07–22/07/22).

Conferences

- 2022 **Spring Workshop on Physics of Data**, Venice, (22/04/06–22/04/08), Talk presentation: *Knot Classification in Polymers through Deep Learning*.
- 2022 **Convegno Società Italiana di Fisica Statistica**, Parma, (22/06/20–22/06/22), Poster presentation: *Knot Classification in Polymers through Deep Learning*.
- 2022 **Venice Meeting on Fluctuations in Small Complex Systems VI**, Venice, (22/09/04 – 22/09/09), Poster presentation: *Knot Classification in Polymers through Deep Learning*.