Lista attività PhD

Pubblicazioni/conferenze

Paper

- Morelli, R., Clissa, L., Amici, R., Cerri, M., Hitrec, T., Luppi, M., Rinaldi, L., Squarcio, F. and Zoccoli, A. *Automating cell counting in fluorescent microscopy through deep learning with c-ResUnet.* Sci Rep 11, 22920 (2021).
  [10.1038/s41598-021-01929-5](10.1038/s41598-021-01929-5).
- Di Girolamo, A., Legger, F., Paparrigopoulos, P., Schovancova, J., Beermann, T., Boehler, M., Bonacorsi, D., Clissa, L., Decker de Sousa, L., Diotalevi, T., Giommi, L., Grigorieva, M., Giordano, D., Hohn, D., Javůrek, T., Jezequel, S., Kuznetsov, V., Lassnig, M., Mageirakos, V., Olocco, M., Padolski, S., Paltenghi, M., Rinaldi, L., Sharma, M., Tisbeni S.R. and Tuckus, N. *Preparing distributed computing operations for the HL-LHC era with Operational Intelligence*, Frontiers in Big Data and AI in High Energy Physics (2021)
  10.3389/fdata.2021.753409
- Di Girolamo, A., Legger, F., Paparrigopoulos, P., Klimentov, A., Schovancová, J., Kuznetsov, V., Lassnig, M., Clissa, L., Rinaldi, L., Sharma, M. and Bakhshiansohi, H. *Operational intelligence for distributed computing systems for exascale science. EPJ Web of Conferences*. Vol. 245. EDP Sciences, 2020.
  10.1051/epjconf/202024503017
- *Macaluso, A., Clissa, L., Lodi, S., & Sartori, C. (2020, May). Quantum splines for non-linear approximations. In Proceedings of the 17th ACM International Conference on Computing Frontiers (pp. 249-252).*
  [10.1145/3387902.3394032](10.1145/3387902.3394032)
- Macaluso, A., Clissa, L., Lodi, S., & Sartori, C. (2020, June). A Variational Algorithm for Quantum Neural Networks. In *International Conference on Computational Science* (pp. 591-604). Springer, Cham.
  https://doi.org/10.1007/978-3-030-50433-5_45
- Macaluso, A., Clissa, L., Lodi, S., & Sartori, C. (2020). Quantum Ensemble for Classification. *arXiv preprint arXiv:2007.01028*. (submitted to Quantum Information & Computation)
  https://arxiv.org/pdf/2007.01028.pdf
- Since July 2020 author of the ATLAS collaboration and co-author of 72 papers related to the ATLAS experiment
  https://inspirehep.net/literature?sort=mostrecent&size=25&page=1&q=luca%20clissa&ui-citation-summary=true

Dataset

Clissa, L., Morelli, R., Squarcio, F., Hitrec, T., Luppi, M., Rinaldi, L., Cerri, M., Amici, R., Bastianini, S., Berteotti, C., Lo Martire, V., Martelli, D., Occhinegro, A., Tupone, D., Zoccoli, G. and Zoccoli, A. (2021). *Fluorescent Neuronal Cells.*
10.6092/unibo/amsacta/6706

Poster session

Cell Counting in Microscopic Fluorescence, Nordic Probabilistic AI (2019)

Attività di ricerca

- **Cell Counting in Microscopic Fluorescence:** semantic segmentation of neuronal cells to provide objects counts and their localization; the aim is to develop a tool to support automation in neuroscience experiments involving fluorescent microscopy and counting of activated cells
- **ATLAS Qualification Task:** clustering data transfer errors within ATLAS Distributed Computing; the aim is to support infrastructure management by highlighting potential issues to investigate
- **Covid-19 Hospitalizations:** weekly analysis of covid-19 data from the AUSL Bologna; the aim is to monitor and forecast hospitalizations for planning in advance beds availability and hospital settings conversion during phase II-III-IV of the pandemic
- **ATLAS Conditions Data:** reproduce ATLAS high voltage data through a parametric model to save storage space

Attività didattica

- **75319 - ACTUARIAL MATHEMATICS - 6 CFU** (a.a. 2018/2019 and 2019-2020)
- **84608 - PROBABILITA' - 6 cfu** (a.a. 2018/2019)
- **84555 - STATISTICS - 6 cfu** (a.a. 2018/2019)

Scuole

- Maths for Machine Learning: (https://sites.google.com/view/smml2020/main)
- Intelligent Machines and Mathematics (Dipartimento di Matematica)
- School: Nordic Probabilistic AI School 2019 - Trondheim (Norway) (https://probabilistic.ai/) - 4 CFU
- School: New challenges in Data Science: Big Data and Deep Learning on Data Clouds - Santander (Spain) (http://www.uimp.es/agenda-link.html?id_actividad=63ZH&anyaca=2018-19) - 3 CFU
- School: The second International PHD School on Open Science Cloud - Perugia (Italy) (https://agenda.infn.it/conferenceDisplay.py?confId=15534) - 4 CFU

Corsi

- Programming for Bioinformatics - doc. Martelli - 10 CFU
- Statistical Learning - doc. Pastorello - 6 CFU
- Infrastructures for Big Data (Basic) - doc. Salomoni - 4 CFU
- Applied Machine Learning (Basic) - doc. Bonacorsi - 4 CFU
- Developing, maintaining, and sharing software tools for research - doc. Pianini - 2 CFU
- Advances In Deep Learning With Applications In Text And Image Processing - doc. Matteucci (Polimi) - 5 CFU
- Infrastructure for Big Data (Advanced) (doc. Salomoni)
- Machine Learning (doc. Asperti)