

WEB

<https://www.b3lab.deib.polimi.it/>

B3LAB Newsletter N° 8

September 2023



Dear B-cubici,

Welcome to all the new B3LAB members!!

The website has been updated by Manuela, let her know if further updates are needed.

News



Marta Carrara was awarded the *first prize of IFMBE young investigator* competition at the 16th Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON 2023)

MONIMEDS (MONitoring MEDical Devices for higher patients' Safety) by **Yijun Ren**, Riccardo Gibello, Antonella Lombardi and **Enrico Caiani** passed among the top 90 at the second stage of Switch2Product 2023, and also among the top 20 at the second stage of Start Cup Regionel Lombardia 2023

Prof. **Luca Mainardi** received an *EU grant* as beneficiary partner in the Project “**SMASH-HCM**: Stratification, Management, and Guidance of Hypertrophic Cardiomyopathy Patients Using Hybrid Digital Twin Solutions”.

The wall-of-fame at the 3rd floor started to be populated!!!

Events



The Politecnico di Milano, together with the Laboratory of Clinical Data Science of the Mario Negri Institute and the GiViTI group, is opening the registration for the DATATHON to be held at the Politecnico di Milano - Lecco Campus, from November 16th to 18th. The event, titled GIVITHON - GiViTI Critical Care Datathon, groups multidisciplinary teams that will compete by answering relevant clinical questions in the context of the Intensive Care. You can find more information at the following link: <https://givithon.marionegri.it/>

The opening of pre-registrations dedicated only to the members of the organizing institutions, so if you or any of your colleagues or students wish to participate it will be possible to register using this link: <https://givithon.marionegri.it/pagina-iscrizione/>

Prof. Luca Mainardi is keynote speaker at the 8th Annual Huawei Device Technology Summit in Helsinki October 8th-10th , 2023

Prof. Caiani has participated as speaker on "Ethics and digital health tools" within the *ARTIFICIAL INTELLIGENCE AND HEALTH TECHNOLOGIES IN CARDIOVASCULAR DISEASE 2023* virtual meeting (21-22/9), Zurich Heart House

Prof, Caiani is participating as expert to the scientific table "*Aerospace Physiology*" in the context of the events for the 100 years of the Italian Military Air Force

Publications

S. Cerutti, B. Eskofier, G. Tourassi (Guest Editors of a Special Issue), Advancing Biomedical Discovery and Healthcare Delivery through Digital Technology, Editorial, IEEE Journal Biom and Health Inform., vol. 27, n. 6: 2656-2659, June 2023

Averna, A*, **Coelli, S***, Ferrara, R., **Cerutti, S.**, Priori, A., & **Bianchi, A. M.** (2023). Entropy and fractal analysis of brain-related neurophysiological signals in Alzheimer's and Parkinson's disease. Journal of Neural Engineering. DOI 10.1088/1741-2552/acf8fa

Penso M, Babbaro M, Moccia S, Baggiano A, Conte E, Pepi M, Andreini D, Pontone G, **Caiani EG.** A Deep Learning Approach for Scar Detection in Early Contrast-Enhanced Cardiac CT Images. Front. Cardiovasc. Med. - Sec. Cardiovascular Imaging 2023:10. <https://doi.org/10.3389/fcvm.2023.1151705>

Svennberg E, **Caiani EG**, Bruining N, Desteghe L, Han JK, Narayan SM, Rademakers FE, Sanders P, Duncker D. The digital journey: 25 years of digital development in electrophysiology from an Europace perspective. Europace. 2023 Aug 25;25(8):euad176

Campitelli, R., **Ferrario, M.**, Su, F., Creteur, J., Herpain, A., & **Carrara, M.** (2023). Pulse wave analysis as a tool for the evaluation of resuscitation therapy in septic shock. Physiological Measurement.

Accepted conference papers

Ren Y, Caiani EG. Development of a Framework Dealing with Partial Data Unavailability and Unstructuredness to Support Post-Market Surveillance. IEEE EHB 2023, 15-18/10/2023, Pittsburgh, USA

Nawaro J, Gianquintieri L, Caiani EG. Developing a Sustainable Development Goal 3 (SDG3) index for Italian municipalities. 2° Int. One Health Conference 2023, 19-20/10/2023, Barcellona, Spain

Reminder

*****Research Topic STILL open*****

Frontiers in Neuroergonomics is currently hosting the following Research Topic with **Eleonora Maggioni** and Prof. Mendez as topic editors, coordinated by **Stefania Coelli**:

<https://www.frontiersin.org/research-topics/48939/stress-and-the-brain-advances-in-neurophysiological-measures-for-mental-stress-detection-and-reducti>

*****Software*****

SPIDER-NET (Software Package Ideal for Deriving Enhanced Representations of brain NETWORKS) . You can find SPIDER-NET here : <https://caditer.dongnocchi.it/spidernet/>

The B3Lab GitHub repository is online to promote collaboration and code_reuse among us: <https://github.com/b3lab-polimi> ! Can't wait to become part of our community? Just send a request to pierluigi.reali@polimi.it , specifying the email address connected to your GitHub account

*****Website*****

Do you have *Master's thesis proposals* but don't know how to advertise them effectively? You can count on the B3lab's website! 😊 We are looking for abstracts like this one to work on the new layout of the dedicated website section (https://www.b3lab.deib.polimi.it/?page_id=1176) and try out different strategies to increase its visibility on social networks.

The proposal does not have to be much elaborate: as long as you provide a title, a track, and one or more contacts, you are good. If you wish to contribute, please, send your abstract as a Word document to pierluigi.reali@polimi.it. Having at least one proposal from each of our different macro-areas (signals, images, bioinformatics, and e-health) would be great as a start!