EURO-PAR
CONFERENCE 2019

(W 8) PDCLifeS
Parallel and Distribuited Computing for Life Sciences: Algorithms, Methodologies, and Tools

DATE

Tuesday 27.08.2019, 09:00 - 12:30

LOCATION

Heyne-Haus, Papendiek 16, 37073 Göttingen, Room 1/left ► Map

SCOPE

Advancements in Life Sciences are largely driven by the development of powerful technologies and computational tools. Applications range from drug discovery and personalized medical therapies to improved agricultural and green energy production. However, the solution of world-real problems requires a multidisciplinary approach and poses new challenges to the field of High-Performance Computing (HPC) at different levels:

- modeling and simulation of complex phenomena (human organ functions, evolution of diseases, sustainable energy systems, etc.)
- processing and analysis of massive amounts of data produced by modern technologies (omics and genome sequencing, functional and anatomical imaging, High-Content Screening, etc.)
- extracting, merging and understanding of information from different sources (merging different types of images, bridging imaging and omics data, etc.)
- storage, security, and availability of datasets (in order to gather information, compare results, reproduce the experiments, etc.)

The PDCLifeS Workshop is oriented to explore the key role of HPC algorithms, methodologies and tools for solving problems related to different branches of Life Sciences (Biology, Biomedicine, Bioengineering, Ecology, etc.).

WORKSHOP CHAIRS

- **Laura Antonelli**, Institute for High-Performance Computing and Networking, Consiglio Nazionale delle Ricerche (CNR, Rome, Italy
- **Salvatore Cuomo**, University of Naples " Federico II", Naples, Italy

AGENDA

09:00 -09:30
Giuseppe Agapito, Mario Cannataro, **Pietro Hiram Guzzi** and Marianna Milano
Parallel Learning of Weighted Association Rules in Human Phenotype Ontology

09:30 - 10:00
Tom Haber and Frank van Reeth
Improving the runtime performance of non-linear mixed-effects model estimation

10:00 - 10:30
Mattia Conte, Andrea Esposito, Luca Fiorillo, Carlo Annunziatella, Alfonso Corrado, Francesco Musella, Renato Sciarretta, Andrea Maria Chiariello and **Simona Bianco**
Hybrid Machine Learning and Polymer Physics approach to investigate 3D chromatin structure

10:30 11:00 Coffee Break

11:00 - 11:30
Rossella Arcucci, Laetitia Mottet, **Cesar A Quilodran Casas**, Florian Guitton, Christopher Pain and Yi-Ke Guo
Adaptive Domain Decomposition for Effective Data Assimilation

11:30 - 12:00
Sina Salimzadeh and Sara Kandulu
Application of Wavelet Transform in Teeth Segmentation of Bitewing X-Ray Images

12:30 14:00 Lunch Break

Submission deadline for the Euro-Pas PhD Symposium has been extended to 27 May, 2023. Click here for more information - https://t.co/wWxisICJSC

17.05.2023 - 11:51

The Euro-Par PhD Symposium is a welcoming and supportive forum for PhD students to present their work. Click here for more information: https://t.co/wWxisICJSC

04.04.2023 - 09:25

Submit your paper for EURO-PAR 2023 Workshops and Minisymposia! Click here for more information. https://t.co/UEseXWb3Dz

07.03.2023 - 08:18

Abstract submission is due tomorrow 24 Feb, 2023 https://t.co/eH2C9CRZA3

23.02.2023 -

CONTACT US

HOSTS

GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

GWDG
Gesellschaft für wissenschaftliche Datenverarbeitung mbH Göttingen

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