



Workshop

Artificial intelligence and automation meet cellular imaging in biomedical research

25 March 2021 10:00-16:00

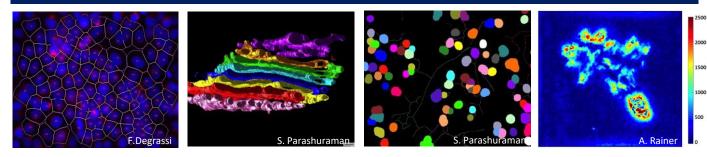
organized by the IBPM Imaging group

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Cellular imaging is undergoing an unprecedented development that has greatly amplified its informative power with the introduction of machine learning, artificial intelligence-based approaches and quantitative data analysis. The workshop explores the application of these methods in as diverse cell biology fields as cell migration a, morphological reconstruction of subcellular structures, and use of model organism- and cell-based assays in genetic and drug screening.



PROGRAMME

10:00 Alessandro Giuffrè (Istituto di Biologia e Patologia Molecolari, IBPM CNR) Welcome

10:05 Francesca Degrassi (IBPM CNR) Introduction

10:15-10:45 Mario Guarracino (*Istituto di Calcolo e Reti ad Alte Prestazioni, ICAR CNR*) Machine learning and artificial intelligence in bioimaging applications

10:50-11:20 Alberto Rainer (*Università Campus Bio-Medico di Roma e Istituto di Nanotecnologia, NANOTEC CNR*) Interfacing high-content screening with microfluidic organs-on-chip

11:25-11:40 Break

11:40-12:10 Ivan Conte (*Università degli studi di Napoli Federico II e Istituto Telethon di Genetica e Medicina, TIGEM*) Applications of Medaka fish in biomedical research

12:15-12:45 Giacomo Cozzi (*Nikon Instruments*) NIS Elements: a multipurpose software platform

12:50 Lunch break

14:00-14:30 Giulia Guarguaglini (*IBPM CNR*) Automated imaging and cellbased assays for anti-mitotic drug target screening

14:35-15:05 Seetharaman Parashuraman (*Istituto di Biochimica e Biologia Cellulare, IBBC CNR*) Analysis of cell and organelle morphology by automated image segmentation

15:10-15:40 General discussion and concluding remarks

The last 5 minutes of every presentation will be dedicated to questions and answers.

