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International Program Committee:

http://ismco.net/index.php/program-committee







CALL FOR PAPERS

3rd International Symposium on Mathematical and Computational Oncology (ISMCO'21)

October 11-13, 2021

Virtual

http://www.ismco.net/

Understanding the origins and growth of cancer requires understanding the role of genetics in encoding proteins that form phenotypes and molecular alterations at multiple levels (e.g., gene, cell, and tissue). Multiscale advanced mathematical and computational models could provide the tools to make therapeutic strategies adaptable enough and to address the emerging targets. Similarly, understanding the interrelationship amongst complex biological processes requires analyzing very large databases of cellular pathways. High-performance computing, big data analytics, data-intensive computing, and medical image analysis techniques could be critical in addressing these challenges. ISMCO aspires to enable the forging of stronger relationships among physical sciences, computer science, data science, engineering and oncology with the goal of developing new insights into the pathogenesis and treatment of malignancies. The symposium will consist of invited and contributed presentations. There will also be several keynote presentations, tutorials, special tracks, and panel discussions.

Topics of interest include, but not limited, to the following areas:

- Precision medicine and immuno-oncology
- Spatio-temporal tumor modeling and simulation
- Tumor forecasting methods
- Molecular subtyping, survival analysis and prediction
- Novel experimental cultures
- Cancer genomics and proteomics
- Next-generation sequencing and single-cell analysis
- Systems biology and networks
- General cancer computational biology
- Computational methods for anticancer drug development
- Cancer epidemiology, biomarkers and prevention
- Statistical methods and data mining for cancer research
- Deep learning and machine learning for cancer research
- Big data analytics for cancer research
- High performance computing for cancer research
- Data intensive computing for cancer research
- Scalable and high throughput systems for large-scale cancer-data analytics
- Text analytics and natural language processing (NLP) for cancer research
- Automatic semantic annotation of medical content in the context of cancer disease
- Application of cloud computing, SaaS and PaaS architectures for cancer research
- Computer-aided diagnosis (CADx) systems for cancer research
- Computer vision, scientific visualization, and image processing for cancer research
- Robotics for cancer research

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• Artificial Intelligence for cancer research

ISMCO encourages three types of submissions for the main symposium and special tracks: **(1st type)** abstracts (1-2 pages), short papers (4-6 pages), or full papers (10-12 pages) of original and previously **unpublished** research, **(2nd type)** abstracts (1-2 pages) or short papers (4-6 pages) of original but recently **published** research in a journal (but not in another conference) and **(3rd type)** short papers (4-6 pages) describing work-in-progress, demos, experimental studies, open-source developments, and visionary papers. Each submission will be reviewed by three members of the Program Committee (PC) using a "double-blind" review process to determine its appropriateness for acceptance and presentation (oral or poster) at ISMCO. Although publication in the symposium proceedings is not required for poster presentation will have the option to publish their work either in the abstract proceedings or short/full paper proceedings.

Important Dates:	Tutorials and Special Track Proposals: Tutorials and Special Track Notifications: Abstract/Paper submissions:	April 15, 2021 April 20, 2021 August 10, 2021
	Notification of acceptance:	September 6, 2021
	Final camera ready paper: Early Registration:	September 24, 2021 September 24, 2021
	Hotel Reservation:	N/A
	ISMCO Symposium:	October 11-13, 2021