



INFORMATION PROCESSING IN MEDICAL IMAGING

18-23 June 2023 • San Carlos de Bariloche, Argentina

The 28th biennial international conference on Information Processing in Medical Imaging (IPMI 2023) will be held in San Carlos de Bariloche, Argentina, in beautiful Patagonia, from 18 to 23 June 2023. The conference is the latest in a series where novel developments in the acquisition, formation, analysis, and display of medical images are presented, discussed, dissected, and extended. Since its inception, 27 successful editions have generated a strong community turning IPMI into a premier conference in medical image analysis. IPMI places the highest importance on high-quality submissions coupled with presentations and thorough discussions of the presented contributions. IPMI 2023 will continue the scientific focus and traditions established over the last 50 years.

Please see further information at <http://www.ipmi2023.org>.

Information Processing Breakthroughs in Biomedical Imaging

The primary focus of IPMI is to disseminate, showcase, and exchange the latest methodological advancements in medical imaging. The hallmark of any "IPMI paper" is solving biomedical imaging information processing challenges with a sound foundation of theory and/or algorithms. IPMI favours a critical spirit where all contributions are subject to an extended presentation format and a discussion enriched by the in-depth analysis by study groups. IPMI is enriched by a retreat atmosphere where everyone is welcome to share their expertise and talents. Therefore, IPMI is today widely recognized as a premier international forum for the presentation of cutting-edge research in the medical imaging field including yet not limited to the following topics:

- Functional and molecular imaging methods
- Biological imaging and digital pathology methods
- Image-guided interventions and surgery
- Imaging genomics, imaging omics
- Image registration and segmentation
- Image acquisition and reconstruction
- Image information fusion and synthesis
- Computer-aided diagnosis and treatment
- Statistical and computational geometric modelling
- Computational anatomy and physiology
- Visualization and physicalization in imaging
- Multidimensional, multimodality, multiscale imaging problems
- Novel deep learning methods for medical imaging
- Inference and learning under uncertain, incomplete or limited data
- Uncertainty modelling and quantification
- Representation learning, image synthesis, and generative modelling
- Transfer learning, domain adaptation, and data harmonization
- Interpretable, explainable, and causal learning
- Statistical and mathematical foundations of imaging science
- Geometric learning and geometric deep learning
- Foundations of deep learning and their evaluation
- Fairness of machine learning in medical imaging



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IPMI 2023 will feature an exciting agenda of scientific presentations and attract outstanding researchers from throughout the world. Bariloche will provide a pleasant and informal scenery and context conducive to in-depth scientific exchange and lively debate. Furthermore, special attention will be paid to the inter-generational exchange fostering discussions which will provide newcomers to the field with a rich idea of the field's history.

Proceedings will be published as a volume in the Springer Lecture Notes Computer Science (LNCS) series.

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Submission Deadline: **18 November, 2022**

Decision Notification: **5 February, 2023**

Registration Opens: **19 March, 2023**

Conference: **18-23 June, 2023**



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About Bariloche

San Carlos de Bariloche, usually known as Bariloche (Spanish pronunciation: [bari'lotʃe]), is a city in the province of Río Negro, Argentina, situated in the foothills of the Andes on the southern shores of Nahuel Huapi Lake. It is located within the Nahuel Huapi National Park. After the development of extensive public works and Alpine-styled architecture, the city emerged in the 1930s and 1940s as a major tourism centre with skiing, trekking and mountaineering facilities.



ORGANIZING SECRETARIAT



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