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Connectomics in NeuroImaging

Second International Workshop, CNI 2018
Held in Conjunction with MICCAI 2018
Granada, Spain, September 20, 2018
Proceedings

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Preface

The 2nd International Workshop on Connectomics in NeuroImaging (CNI 2018) was held in Granada, Spain, on September 20th, 2018, in conjunction with the 21st International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI).

Connectomics is the study of whole brain maps of connectivity, commonly referred to as the brain connectome. It focuses on quantifying, visualizing, and understanding brain network organization, and includes applications in neuroimaging. The primary academic objective of the CNI workshop is to bring together computational researchers (computer scientists, data scientists, computational neuroscientists) to discuss new advancements in network construction, analysis, and visualization techniques in connectomics and their use in clinical diagnosis and group comparison studies. The secondary academic objective is to attract neuroscientists and clinicians to show recent methodological advancements in connectomics, and how they are successfully applied in various neuroimaging applications. CNI 2018 was held as a single-track workshop that included three keynote speakers (Gustavo Deco, Martijn van den Heuvel, and Dafnis Batalle), oral paper presentations, poster sessions, and software demonstrations.

The quality of submissions to our workshop was very high. Authors were asked to submit papers of 8–10 pages in length for review. A total of 20 papers were submitted to the workshop in response to our call for papers. Each of the 20 papers underwent a rigorous double-blind peer-review process, with each paper being reviewed by at least two reviewers from the Program Committee, composed of 28 well-known experts in the field of connectomics. Based on the reviewing scores and critiques, the best 15 papers were accepted for presentation at the workshop, and chosen to be included in this Springer LNCS volume. The large variety of connectomics techniques applied in neuroimaging applications were well represented at the CNI 2018 workshop.

We are grateful to the Program Committee for reviewing the submitted papers and giving constructive comments and critiques, to the authors for submitting high-quality papers, to the presenters for excellent presentations, and to all the CNI 2018 attendees who came to Granada from all around the world.

September 2018

Guorong Wu
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