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Katrin Amunts · Lucio Grandinetti
Thomas Lippert · Nicolai Petkov (Eds.)

Brain-Inspired Computing

Second International Workshop, BrainComp 2015
Cetraro, Italy, July 6–10, 2015
Revised Selected Papers

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Preface

Brain-inspired computing is a fast-developing research topic. On one hand, it relates to fundamental neuroscience research that leads to insights in the information-processing function of the brain. On the other hand, it is aimed at utilizing these insights in new methods and technologies for information processing and might even initiate a paradigm change in this area. Brain-inspired computing creates opportunities for collaboration between scientists from various disciplines: neuroscience, computer science, engineering, natural sciences, and mathematics. The understanding of the importance of this area led to the initiation of the EU flagship “Human Brain Project” in the framework of the EU program for future and emerging technologies (FET). The current book includes contributions from renowned scientists who participated in the International Workshop on Brain-Inspired Computing in Cetraro, Italy, during July 6–10, 2015. It contains contributions that concern brain structure and function, computational models, and brain-inspired computing methods with practical applications, high-performance computing, and visualization for brain simulations.

July 2015

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Organization

BrainComp2015 was organized by the Department of Electronics, Informatics, and Systems, University of Calabria, Italy, Forschungszentrum Juelich GmbH, Germany, and Johann Bernoulli Institute of Mathematics and Computer Science, University of Groningen, The Netherlands.

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