Record Nr. UNISA996464497503316 Autore **Amunts Katrin Titolo** Brain-Inspired Computing [[electronic resource]]: 4th International Workshop, BrainComp 2019, Cetraro, Italy, July 15-19, 2019, Revised Selected Papers / / edited by Katrin Amunts, Lucio Grandinetti, Thomas Lippert, Nicolai Petkov Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2021 **ISBN** 3-030-82427-6 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (163 p.) Collana Theoretical Computer Science and General Issues, , 2512-2029;; 12339 Altri autori (Persone) GrandinettiLucio LippertThomas PetkovNicolai 005.437 Disciplina 004.019 Soggetti User interfaces (Computer systems) Human-computer interaction Artificial intelligence Image processing—Digital techniques Computer vision Computer engineering Computer networks User Interfaces and Human Computer Interaction Artificial Intelligence Computer Imaging, Vision, Pattern Recognition and Graphics Computer Engineering and Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto Machine Learning and Deep learning approaches in human brain mapping -- A high-resolution model of the human entorhinal cortex in

the 'BigBrain' – use case for machine learning and 3D analyses -- Deep learning-supported cytoarchitectonic mapping of the human lateral geniculate body in the BigBrain -- Brain modelling and simulation --

Computational modelling of cerebellar magnetic stimulation: the effect of washout? -- Usage and scaling of an open-source spiking multi-area model of the monkey cortex -- Exascale compute and data infrastructures for neuroscience and applications -- Modular supercomputing for neuroscience -- Fenix: Distributed e-Infrastructure Services for EBRAINS -- Independent component analysis for noise and artifact removal in three-dimensional Polarized Light Imaging -- Exascale artificial and natural neural architectures -- Brain-inspired algorithms for processing of visual data -- An hybrid attention-based system for the prediction of facial attributes -- The statistical physics of learning revisited: Typical learning curves in model scenarios -- Emotion mining: from unimodal to multimodal approaches -- .

Sommario/riassunto

This open access book constitutes revised selected papers from the 4th International Workshop on Brain-Inspired Computing, BrainComp 2019, held in Cetraro, Italy, in July 2019. The 11 papers presented in this volume were carefully reviewed and selected for inclusion in this book. They deal with research on brain atlasing, multi-scale models and simulation, HPC and data infra-structures for neuroscience as well as artificial and natural neural architectures.