Record Nr. UNINA9910484171003321 Transactions on Computational Science XVIII [[electronic resource]]: **Titolo** Special Issue on Cyberworlds / / edited by Marina L. Gavrilova, C.J. Kenneth Tan, Arjan Kuijper Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa **ISBN** 3-642-38803-5 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (XVI, 265 p. 130 illus.) Transactions on Computational Science, , 1866-4733; ; 7848 Collana 005.437 Disciplina 4.019 User interfaces (Computer systems) Soggetti Artificial intelligence Education—Data processing Optical data processing User Interfaces and Human Computer Interaction Artificial Intelligence Computers and Education Computer Imaging, Vision, Pattern Recognition and Graphics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di contenuto Distributed Rendering for Interactive Multi-screen Visualization Environments Based on XNA Game Studio -- Training Interpreters Using Virtual Worlds -- Mathematical Foundations for Designing a 3-Dimensional Sketch Book -- Image-Based Virtual Palpation --Asynchronous Immersive Classes in a 3D Virtual World: Extended Description of vAcademia -- Real-Time Fractal-Based Valence Level Recognition from EEG -- Towards Multi-hazard Resilience as a New Engineering Paradigm for Safety and Security Provision of Built Environment -- Recognizing Avatar Faces Using Wavelet-Based Adaptive Local Binary Patterns with Directional Statistical Features --Real-Time Reactive Biped Characters: Staying Upright and Balanced --Using Head Tracking Data for Robust Short Term Path Prediction of Human Locomotion -- A Computational Model of Emotional Attention

Sommario/riassunto

for Autonomous Agents -- Haptic Rendering of Volume Data with Collision Detection Guarantee Using Path Finding -- Towards Early Diagnosis of Dementia Using a Virtual Environment -- Providing Visual Support for Selecting Reactive Elements in Intelligent Environments.

The 18th issue of the Transactions on Computational Science journal, edited by Arjan Kuijper, is devoted to the topic of cyberworlds. The 14 papers in the volume constitute revised and extended versions of a selection of contributions presented at CW 2012, the International Conference on Cyberworlds, held in Darmstadt, Germany in September 2012. The selected papers span the areas of human path prediction, gesture-based interaction, rendering, valence-levels recognition, virtual collaborative spaces, virtual environment, emotional attention, virtual palpation, sketch-book design, animation, and avatar-face recognition.