1. Record Nr. UNISA996466294903316 Symbiotic Interaction [[electronic resource]]: 4th International **Titolo** Workshop, Symbiotic 2015, Berlin, Germany, October 7-8, 2015. Proceedings / / edited by Benjamin Blankertz, Giulio Jacucci, Luciano Gamberini, Anna Spagnolli, Jonathan Freeman Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-24917-7 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (VIII, 180 p. 57 illus. in color.) Collana Information Systems and Applications, incl. Internet/Web, and HCI;; 9359 004.019 Disciplina Soggetti Application software Information storage and retrieval Database management Data mining Artificial intelligence User interfaces (Computer systems) Information Systems Applications (incl. Internet) Information Storage and Retrieval **Database Management** Data Mining and Knowledge Discovery Artificial Intelligence User Interfaces and Human Computer Interaction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographic references and index. Nota di contenuto EEG Filtering Optimization for Code-modulated Chromatic Visua Evoked Potential-based Brain-computer Interface -- Using fNIRS for Prefrontal-Asymmetry Neurofeedback: Methods and Challenges -- A neuroaesthetic study of the cerebral perception and appreciation of paintings by Titian using EEG and eyetracker measurements --Symbiotic adaptive interfaces: a case study using BrainX3 -- On the use of cognitive neurometric indexes in aeronautic and air traffic

management environments -- A Closed-Loop Perspective on Symbiotic

Human-Computer Interaction -- Developing a Symbiotic System for Scientiffic Information Seeking: The MindSee Project -- Live Demonstrator of EEG and Eye-Tracking Input for Disambiguation of Image Search Results -- Applying psychology research to shopper mindsets with implications for future symbiotic search systems -- Symbiotic Interaction and the Experience of Agency -- Toward the development of a neuro-controlled bidirectional hand prosthesis -- Comparing input sensors in an immersive mixed-reality environment for human-computer symbiosis -- Tapping Neural Correlates of the Depth of Cognitive Processing for Improving Human Computer Interaction -- Brain-robot Interfaces Using Spatial Tactile and Visual BCI Paradigms.

## Sommario/riassunto

This book constitutes the proceedings of the 4th International Workshop on Symbiotic Interaction, Symbiotic 2015, held in Berlin, Germany, in October 2015. The 11 full papers and 8 short papers presented in this volume were carefully reviewed and selected from 23 submissions. The papers present an overview of the symbiotic relationships between humans and computers as well as novel advancements. The idea of symbiotic systems put forward in this workshop capitalises on the computers' ability to implicitly detect the users goals and psycho-physiological states and thereby enhancing human-computer interaction (HCI). A special focus of this year's Symbiotic Workshop will be on physiological computing approaches, e. g. using brain-computer interface (BCI) technology.