Record Nr. UNINA9910741183203321 Imaging the brain in autism / / Manuel F. Casanova, Ayman S. El-Baz, **Titolo** Jasjit S. Suri, editors Pubbl/distr/stampa New York, : Springer, 2013 **ISBN** 1-4614-6843-4 Edizione [1st ed. 2013.] 1 online resource (xiv, 387 pages): illustrations (some color) Descrizione fisica Collana Gale eBooks Altri autori (Persone) CasanovaManuel F El-BazAyman S SuriJasjit S Disciplina 616.858820754 Soggetti Autism spectrum disorders - Imaging Brain - Imaging Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Introduction to Neuropathology -- The Neuropathology of Autism --QEEG-Guided Neurofeedback for the Autism: Clinical Observations and Outcomes -- Event-Related Potential Studies of Cognitive Processing Abnormalities in Autism -- Evoked and Induced Gamma Frequency Oscillations in Autism -- Neurofeedback for Autistic Disorders: Emerging Empirical Evidence -- Structural Imaging in Autism --Diffusion Tensor Magnetic Resonance Imaging in Autism --Spectroscopic Brain Imaging in Autism -- Functional MRI in Autism --Functional Connectivity MRI in Autism -- EEG Analyses in the Assessment of Autistic Disorders -- Behavior Imaging®'s Assessment Technology. Sommario/riassunto Data compiled by the Center for Disease Control and Prevention indicates an alarming and continuing increase in the prevalence of autism. Despite intensive research during the last few decades, autism remains a behavioral defined syndrome wherein diagnostic criteria lack in construct validity. And, contrary to other conditions like diabetes and hypertension, there are no biomarkers for autism. However, new imaging methods are changing the way we think about autism,

bringing us closer to a falsifiable definition for the condition.

identifying affected individuals earlier in life, and recognizing different

subtypes of autism. The imaging modalities discussed in this book emphasize the power of new technology to uncover important clues about the condition with the hope of developing effective interventions. Imaging the Brain in Autism was created to examine autism from a unique perspective that would emphasize results from different imaging technologies. These techniques show brain abnormalities in a significant percentage of patients, abnormalities that translate into aberrant functioning and significant clinical symptomatology. It is our hope that this newfound understanding will make the field work collaborative and provide a path that minimizes technical impediments.