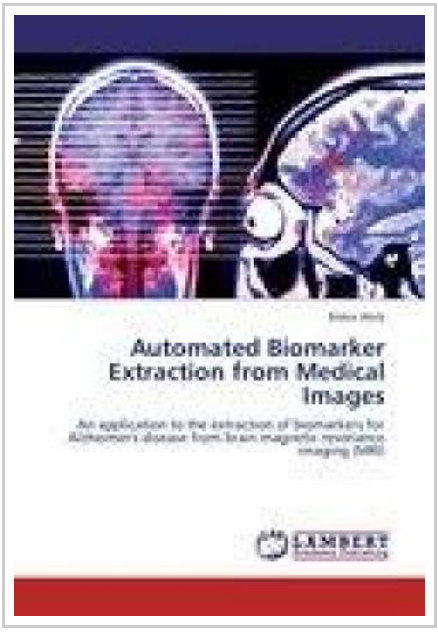

Automated Biomarker Extraction from Medical Images

By Robin Wolz

LAP Lambert Acad. Publ. Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 220x150x9 mm. This item is printed on demand - Print on Demand Neuware - Medical images are widely available to support clinical decision making. This book describes how computer-aided feature extraction techniques can help to obtain biomarkers from medical images that relate to a certain clinical state or the disease progression of individual patients. Different techniques are presented for the example of biomarkers for Alzheimer's disease extracted from brain magnetic resonance imaging (MRI). The first part of the book deals with the automated measurement of traditional morphometric biomarkers. In particular, methods to determine hippocampal volume and hippocampal atrophy are described. In the second part, more data-driven approaches for biomarker extraction based on novel machine-learning techniques are discussed. One application area for the described biomarkers is the selection of subjects in large-scale clinical trials. Other areas include the incorporation of biomarkers into computer aided diagnosis (CAD) systems and the measurement of effects in clinical trials. All described methods are evaluated on a large MRI study on Alzheimer's disease. 156 pp. Englisch.

Reviews

Extensive information for book fans. It is writter in basic words and never hard to understand. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- ***Otis Wisoky***

This publication is great. It is full of wisdom and knowledge You will not really feel monotony at at any time of the time (that's what catalogs are for relating to when you ask me).

-- ***Dr. Everett Dicki DDS***