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Titolo	Pathological Brain Detection [[electronic resource] /] / by Shui-Hua Wang, Yu-Dong Zhang, Zhengchao Dong, Preetha Phillips
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ISBN	981-10-4026-5
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Nota di contenuto	1 Basics of Pathological Brain Detection (PBD) -- 2 Neuroimaging Modalities: Strengths and Weaknesses -- 3 Image Preprocessing for Pathological Brain Detection: A Summary -- 4 Canonical Feature Extraction Methods for Structural Magnetic Resonance Imaging -- 5 Multi-scale and Multi-resolution Features for Structural Magnetic Resonance Imaging -- 6 Dimensionality Reduction of Brain Image Features -- 7 Classification Methods for Pathological Brain Detection -- 8 Weight Optimization of Classifiers for Pathological Brain Detection -- 9 Comparison of Current PBD Systems.
Sommario/riassunto	This book provides detailed practical guidelines on how to develop an efficient pathological brain detection system, reflecting the latest advances in the computer-aided diagnosis of structural magnetic resonance brain images. Matlab codes are provided for most of the functions described. In addition, the book equips readers to easily develop the pathological brain detection system further on their own and apply the technologies to other research fields, such as Alzheimer’

s detection, multiple sclerosis detection, etc. .