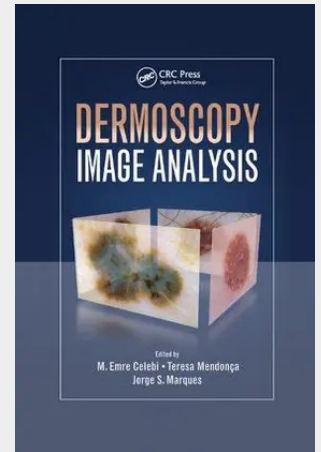


Dermoscopy Image Analysis

Dermoscopy is a noninvasive skin imaging technique that uses optical magnification and either liquid immersion or cross-polarized lighting to make subsurface structures more easily visible when compared to conventional clinical images. It allows for the identification of dozens of morphological features that are particularly important in identifying malignant melanoma. Dermoscopy Image Analysis summarizes the state of the art of the computerized analysis of dermoscopy images. The book begins by discussing the influence of color normalization on classification accuracy and then:

- Investigates gray-world, max-RGB, and shades-of-gray color constancy algorithms, showing significant gains in sensitivity and specificity on a heterogeneous set of images
- Proposes a new color space that highlights the distribution of underlying melanin and hemoglobin color pigments, leading to more accurate classification and border detection results
- Determines that the latest border detection algorithms can achieve a level of agreement that is only slightly lower than the level of agreement among experienced dermatologists
- Provides a comprehensive review of various methods for border detection, pigment network extraction, global pattern extraction, streak detection, and perceptually significant color detection
- Details a computer-aided diagnosis (CAD) system for melanomas that features an inexpensive acquisition tool, clinically meaningful features, and interpretable classification feedback
- Presents a highly scalable CAD system implemented in the MapReduce framework, a novel CAD system for melanomas, and an overview of dermatological image databases
- Describes projects that made use of a publicly available database of dermoscopy images, which contains 200 high-quality images along with their medical annotations

Dermoscopy Image Analysis not only showcases recent advances but also explores future directions for this exciting subfield of medical image analysis, covering dermoscopy image analysis from preprocessing to classification.



43,50 €

40,65 € (zzgl. MwSt.)

Nicht mehr lieferbar

Artikelnummer: 9781138892873

Medium: Buch

ISBN: 978-1-138-89287-3

Verlag: Taylor & Francis Ltd

Erscheinungstermin: 29.11.2017

Sprache(n): Englisch

Auflage: 1. Auflage 2017

Serie: Digital Imaging and Computer Vision

Produktform: Kartoniert

Gewicht: 939 g

Seiten: 508

Format (B x H): 156 x 234 mm

