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Chapter 3.12 Local and Global Stereo Methods Chapter 3.13 Image Sequence Stabilization, Mosaicking, and Superresolution; Section IV: Image and Video Analysis; Image Representations and Image Models; Chapter 4.1 Computational Models of Early Human Vision; Chapter 4.2 Multiscale Image Decompositions and Wavelets; Chapter 4.3 Random Field Models; Chapter 4.4 AM-FM Image Models: Fundamental Techniques and Emerging Trends; Chapter 4.5 Image Noise Models; Chapter 4.6 Color and Multispectral Image Representation and Display; Chapter 4.7 Statistical Modeling of Photographic Images Image and Video Classifications and Segmentation Chapter 4.8 Statistical Methods for Image Segmentation; Chapter 4.9 Multiband Techniques for Texture Classification and Segmentation; Chapter 4.10 Video Segmentation; Chapter 4.11 2D and 3D Motion Tracking in Digital Video; Chapter 4.12 Adaptive and Neural Methods for Image Segmentation; Edge and Boundary Detection in Images; Chapter 4.13 Gradient and Laplacian Edge Detection; Partial Differential Equation-Based Image Processing; Chapter 4.14 Diffusion Partial Differential Equations for Edge Detection; Chapter 4.15 Shape Smoothing and PDEs Chapter 4.16 PDEs for Morphological Scale Spaces and Eikonal Applications Chapter 4.17 Geometric Active Contours for Image Segmentation; Algorithms of Image Processing; Chapter 4.18 Software for Image and Video Processing; Section V: Image Compression; Chapter 5.1 Lossless Coding; Chapter 5.2 Block Truncation Coding; Chapter 5.3 Fundamentals of Vector Quantization; Chapter 5.4 Wavelet Image Compression; Chapter 5.5 Lossy Image Compression: JPEG and JPEG2000 Standards; Chapter 5.6 The JPEG Lossless Image Compression Standards; Chapter 5.7 Multispectral Image Coding Chapter 5.8 Recovery Methods for Postprocessing of Compressed Images

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#### Sommario/riassunto

55% new material in the latest edition of this "must-have" for students and practitioners of image & video processing! This Handbook is intended to serve as the basic reference point on image and video processing, in the field, in the research laboratory, and in the classroom. Each chapter has been written by carefully selected, distinguished experts specializing in that topic and carefully reviewed by the Editor, Al Bovik, ensuring that the greatest depth of understanding be communicated to the reader. Coverage includes introductory, intermediate and advanced topics and as such,

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