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Nota di contenuto	Introduction: Computer-aided Analysis of Mammograms for Diagnosis of Breast Cancer -- Mammogram Enhancement: Background -- Methodology: Motivation, Objectives and Proposed Solution Approach -- Performance Evaluation and Benchmarking of Mammogram Enhancement Approaches: Mammographic Image Quality Assessment -- Non-linear Polynomial Filters: Overview, Evolution and Proposed Mathematical Formulation -- Non-linear Polynomial Filters for Contrast Enhancement of Mammograms -- Non-linear Polynomial Filters for Edge Enhancement of Mammograms -- Human Visual System Based Unsharp Masking for Enhancement of Mammograms -- Conclusions and Future Scope: Applications, Contributions and Impact.
Sommario/riassunto	This book presents non-linear image enhancement approaches to mammograms as a robust computer-aided analysis solution for the early detection of breast cancer, and provides a compendium of non-linear mammogram enhancement approaches: from the fundamentals

to research challenges, practical implementations, validation, and advances in applications. The book includes a comprehensive discussion on breast cancer, mammography, breast anomalies, and computer-aided analysis of mammograms. It also addresses fundamental concepts of mammogram enhancement and associated challenges, and features a detailed review of various state-of-the-art approaches to the enhancement of mammographic images and emerging research gaps. Given its scope, the book offers a valuable asset for radiologists and medical experts (oncologists), as mammogram visualization can enhance the precision of their diagnostic analyses; and for researchers and engineers, as the analysis of non-linear filters is one of the most challenging research domains in image processing. .