Record Nr. UNINA9910822100703321 Autore Kok Chi-Wah Titolo Digital image interpolation in MATLAB® / / Chi-Wah Kok and Wing-Shan Tam Hoboken, New Jersey:,: Wiley:,: IEEE Press,, 2019 Pubbl/distr/stampa **ISBN** 1-119-11964-2 1-119-11963-4 9781119119623 Edizione [First edition] Descrizione fisica 1 online resource (339 pages) THEi Wiley ebooks. Collana Disciplina 006.686 Soggetti Image processing - Digital techniques - Data processing Interpolation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index.

Sommario/riassunto

This book provides a comprehensive study in digital image interpolation with theoretical, analytical and Matlab® implementation. It includes all historically and practically important interpolation algorithms, accompanied with Matlab® source code on a website, which will assist readers to learn and understand the implementation details of each presented interpolation algorithm. Furthermore, sections in fundamental signal processing theories and image quality models are also included. The authors intend for the book to help readers develop a thorough consideration of the design of image interpolation algorithms and applications for their future research in the field of digital image processing. Introduces a wide range of traditional and advanced image interpolation methods concisely and provides thorough treatment of theoretical foundations Discusses in detail the assumptions and limitations of presented algorithms Investigates a variety of interpolation and implementation methods including transform domain, edge-directed, wavelet and scale-space, and fractal based methods Features simulation results for comparative analysis. summaries and computational and analytical exercises at the end of each chapter Digital Image Interpolation in Matlab® is an excellent

guide for researchers and engineers working in digital imaging and digital video technologies. Graduate students studying digital image processing will also benefit from this practical reference text.