1. Record Nr. UNINA9911019648403321

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Titolo	Quantum Image Processing in Practice : A Mathematical Toolbox
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2025 ©2025
ISBN	9781394265169 1394265166 9781394265176 1394265174 9781394265183 1394265182
Edizione	[1st ed.]
Descrizione fisica	1 online resource (318 pages)
Altri autori (Persone)	AgaianSos S
Disciplina	006.3/843
Soggetti	Image processing - Digital techniques Quantum computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	"Image processing represents a critical use of artificial intelligence in various applications, including biomedicine, entertainment, economics, and industry. For example, image processing is extensively used in fast-growing markets like facial recognition and autonomous vehicles. Recently, the rapidly increased volume of image data has become the critical driving force for further improving image processing and analysis efficiency. Quantum computing offers great promise for speedy computation of problems in digital image processing (DIP), namely in processing grayscale and color images. Quantum image processing (QIP) is a research branch of quantum information and quantum computing. It studies how to use quantum mechanics' properties to represent images in a quantum computer and then implement various image operations based on that image format."--