1. Record Nr. UNISA996418444503316

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Titolo	Advanced Computing in Electron Microscopy [[electronic resource] /] / by Earl J. Kirkland
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-33260-8
Edizione	[3rd ed. 2020.]
Descrizione fisica	1 online resource (XII, 354 p. 146 illus., 8 illus. in color.)
Disciplina	502.825
Soggetti	Spectroscopy Microscopy Optical data processing Materials science Spectroscopy and Microscopy Image Processing and Computer Vision Characterization and Evaluation of Materials Biological Microscopy Spectroscopy/Spectrometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- The Transmission Electron Microscope -- Some Image Approximations -- Sampling and the Fast Fourier Transform -- Calculation of Images of Thin Specimens -- Theory of Calculation of Images of Thick Specimens -- Multislice Applications and Examples -- The Programss -- App. A: Plotting Transfer Functions -- App. B: The Fourier Projection Theorem -- App. C: Atomic Potentials and Scattering Factors -- App. D: The Inverse Problem -- App. E: Bilinear Interpolation -- App. F: 3D Perspective View.
Sommario/riassunto	This updated and revised edition of a classic work provides a summary of methods for numerical computation of high resolution conventional and scanning transmission electron microscope images. At the limits of resolution, image artifacts due to the instrument and the specimen interaction can complicate image interpretation. Image calculations can help the user to interpret and understand high resolution information

in recorded electron micrographs. The book contains expanded sections on aberration correction, including a detailed discussion of higher order (multipole) aberrations and their effect on high resolution imaging, new imaging modes such as ABF (annular bright field), and the latest developments in parallel processing using GPUs (graphic processing units), as well as updated references. Beginning and experienced users at the advanced undergraduate or graduate level will find the book to be a unique and essential guide to the theory and methods of computation in electron microscopy.