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Titolo	Imaging Processes and Coherence in Physics [[electronic resource]] : Proceedings of a workshop, Held at the Centre de Physique, Les Houches, France, March 1979 // edited by M. Schlenker, M. Fink, J.-P. Goedgebuer, C. Malgrange, J.-C. Vienot, R. H. Wade
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Nota di contenuto	Lasers sources -- Lasers as stable frequency sources -- Electron sources -- Intense sources of thermal neutrons for research -- X-ray sources -- Ultrasonic waves and optics -- Imaging processes and coherence in optics -- Propagation of neutron beams -- Coherence of illumination in electron microscopy -- Propagation of sound and ultrasound in non-homogeneous media -- Classical apples and quantum potatoes -- Outline of a coherent theory of skiing -- Wave-matter interactions : A general survey -- Basic X-ray interactions with matter -- Scattering experiments in ultrasonic spectroscopy -- Acousto-optical interactions -- H.F. phonon transmission as a probe of condensed matter -- Infrared detectors infrared imaging systems -- The elastic scattering of fast electrons -- Inelastic electron scattering -- Interaction of thermal neutrons with matter -- Structure information retrieval from solution X-ray and neutron scattering experiments --

Guided waves propagation and integrated optics -- Prospects for long-wavelength X-ray microscopy and diffraction -- Kinematical and dynamical diffraction theories -- Dynamical theory of X-ray propagation in distorted crystals -- Polarization phenomena in X-ray diffraction -- Perfect crystal neutron optics -- Coherent approach to neutron beam polarization -- X-ray and neutron interferometry -- X-ray topography : Principles -- Examples of X-ray topographic results -- Neutron topography -- Crystal diffraction optics for x-rays and neutrons -- Electron imaging techniques -- Speckle and intensity interferometry. Applications to astronomy -- Electron holography -- Prospects of X-ray holography -- Imageing by means of channelled particles -- Neutron optics using non-perfect crystals -- Ultrasonic real-time reconstruction imaging -- What can be done with high voltage electron microscopy? -- Transfer functions and electron microscope image formation -- Acoustic microscopy -- Use of coded apertures in gamma-imaging techniques -- Principles and techniques of acoustical imaging -- NMR imaging -- Nuclear scattering radiography -- Computerized tomography scanners -- Recording materials and transducers in optics -- Some applications in hybrid image processing -- X-ray image detectors -- Electron detectors -- Image processing of regular biological objects -- Cathodoluminescence topography -- Image processing in electron microscopy : Non-periodic objects -- Interpretation of X-Ray topography -- "Coherence is beautiful".
