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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to Neutron Physics and Imaging -- Physics and Design of Neutron Sources -- Neutron Optics and Detectors -- Major Neutron Source Facilities Across the Globe -- Basic Principles of Neutron Radiography and Tomography -- Advanced Neutron Imaging Techniques -- Standards, Safety and Regulations in Neutron Imaging -- Neutron Imaging for Aerospace Industry -- Neuron Imaging for Nuclear, Power and Manufacturing Industry -- Neutron Imaging for Materials Science and Engineering Applications -- Neutron Imaging for Archelogy, Palaeontology and Geomechanics Applications -- Neutron Imaging for National Security, Biological and Medical Applications.
Sommario/riassunto	This book comprehensively presents the concepts of neutron physics and imaging including neutron properties, neutron matter interaction, neutron imaging, comparison with X-ray and physics and design of neutron sources. It discusses how neutron imaging has gained importance as a powerful non-destructive technique to understand the internal structures of materials/engineered components in wide range of industries, including defense, aerospace, and healthcare. The book also covers the topics of neutron optics and detectors, basic principles

of neutron radiography and tomography, and standards, safety and regulations in neutron imaging. In the last section of the book, it covers wide range of applications of neuro imaging in the areas of aerospace industry, nuclear power and manufacturing industry, 3D printing, materials science and engineering, geomechanics, archeology and palaeontology, national security, biological, and medical industries. Given its scope, the book will be highlyuseful for postgraduate students, researchers and industry professionals working in the area of engineering and physics, especially non-destructive testing and non-destructive evaluation of neutron imaging.