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| Descrizione fisica | 1 online resource (xiii, 254 pages) : digital, PDF file(s) |
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| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Historical remarks -- Spectroscopy in present-day astronomy -- Basic physics of spectral measurements -- Optical-range grafting and prism spectrometers -- Other techniques for the optical spectral range -- Preparing and reducing optical observation -- UV, X-ray, and gamma spectroscopy -- Spectroscopy at radio wavelengths -- Special techniques of the FIR and submillimeter range -- New developments and future prospects. |
| Sommario/riassunto | Spectroscopy is the principal tool used in astronomy to investigate the Universe beyond Earth's atmosphere. Through the analysis of electromagnetic radiation, spectrographs enable observers to assess the chemical composition, kinematics and local physical properties of distant stars, nebulae and galaxies. Thoroughly illustrated and clearly written, this handbook offers a practical and comprehensive guide to the different spectroscopic methods used in all branches of astronomy, |

at all wavelengths from radio to gamma-ray and from ground and space-borne instruments. After a historical overview of the field, the central chapters navigate the various types of hardware used in spectroscopy. In-depth descriptions of modern techniques and their benefits and drawbacks help you choose the most promising observation strategy. The handbook finishes by assessing new technologies and future prospects for deep-sky observation. This text is an ideal reference for today's graduate students and active researchers, as well as those designing or operating spectroscopic instruments.
