Record Nr. UNINA9910831162003321 Advances in speckle metrology and related techniques [[electronic **Titolo** resource] /] / edited by Guillermo H. Kaufmann Pubbl/distr/stampa Weinheim,: Wiley-VCH Verlag, c2011 **ISBN** 3-527-63387-1 1-283-14068-3 9786613140685 3-527-63385-5 3-527-63386-3 Edizione [4th ed.] Descrizione fisica 1 online resource (329 p.) KaufmannGuillermo H Altri autori (Persone) Disciplina 621.36 Soggetti Speckle metrology Optical measurements Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Advances in Speckle Metrology and Related Techniques; Contents; Preface; List of Contributors; 1 Radial Speckle Interferometry and Applications; 2 Depth-Resolved Displacement Field Measurement; 3 Single-Image Interferogram Demodulation; 4 Phase Evaluation in Temporal Speckle Pattern Interferometry Using Time-Frequency Methods; 5 Optical Vortex Metrology; 6 Speckle Coding for Optical and Digital Data Security Applications; Index Speckle metrology includes various optical techniques that are based Sommario/riassunto on the speckle fields generated by reflection from a rough surface or by transmission through a rough diffuser. These techniques have proven to be very useful in testing different materials in a non-destructive way. They have changed dramatically during the last years due to the development of modern optical components, with faster and more powerful digital computers, and novel data processing approaches. This most up-to-date overview of the topic describes new techniques

developed in the field of speckle metrology over t