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	Soggetti	Fluid mechanics Physical measurements Measurement Fluids Chemical engineering Signal processing Image processing Speech processing systems Thermodynamics Heat engineering Heat - Transmission Mass transfer Engineering Fluid Dynamics Measurement Science and Instrumentation Fluid- and Aerodynamics Industrial Chemistry/Chemical Engineering Signal, Image and Speech Processing Engineering Thermodynamics, Heat and Mass Transfer
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	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Physical and Technical Background -- Mathematical Background of Statistical PIV Evaluation -- PIV Recording Techniques -- Image

Evaluation Methods for PIV -- Post-Processing of PIV Data -- Three-Component PIV Measurements -- Micro-PIV -- Examples of Application -- Related Techniques.

Sommario/riassunto	This practical guide provides comprehensive information on PIV. The third edition extends many aspects of Particle image Velocimetry, in particular the tomographic PIV method, high-velocity PIV, Micro-PIV, and accuracy assessment. In this book, relevant theoretical background information directly support the practical aspects associated with the planning, performance and understanding of experiments employing the PIV technique. It is primarily intended for engineers, scientists and students, who already have some basic knowledge of fluid mechanics and non-intrusive optical measurement techniques. It shall guide researchers and engineers to design and perform their experiment successfully without requiring them to first become specialists in the field. Nonetheless many of the basic properties of PIV are provided as they must be well understood before a correct interpretation of the results is possible.