1. Record Nr. UNINA9910590072803321

Titolo	Transactions on Intelligent Welding Manufacturing : Volume IV No. 1 2020 / / edited by Shanben Chen, Yuming Zhang, Zhili Feng
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	981-19-3902-0
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (102 pages)
Collana	Transactions on Intelligent Welding Manufacturing, , 2520-8527
Disciplina	671.52
Soggetti	Automatic control Robotics Automation Artificial intelligence Industrial engineering Production engineering Control, Robotics, Automation Artificial Intelligence Industrial and Production Engineering Control and Systems Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intelligentized technologies for robotic welding -- Advanced welding robot technologies -- Programming and simulation of welding robots -- Vision guiding and tracking technologies of welding robots -- Quality control of robotic welding -- Tele-control and network technologies for robotic welding -- Sensing technologies for welding process -- Robotic welding under special environment -- Intelligentized and digital welding equipments -- Intelligentized technologies for industrial process.
Sommario/riassunto	The primary aim of this volume is to provide researchers and engineers from both academic and industry with up-to-date coverage of new results in the field of robotic welding, intelligent systems and automation. The book is mainly based on papers selected from the 2020 International Conference on Robotic Welding, Intelligence and

		Automation (RWIA'2020) in Shanghai and Lanzhou, China. The articles show that the intelligentized welding manufacturing (IWM) is becoming an inevitable trend with the intelligentized robotic welding as the key technology. The volume is divided into four logical parts: Intelligent Techniques for Robotic Welding, Sensing of Arc Welding Processing, Modeling and Intelligent Control of Welding Processing, as well as Intelligent Control and its Applications in Engineering.

2.	Record Nr.	UNINA9910337880303321
	Autore	Di Domenico Giuseppe
	Titolo	Electro-optic Photonic Circuits : From Linear and Nonlinear Waves in Nanodisordered Photorefractive Ferroelectrics / / by Giuseppe Di Domenico
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
	ISBN	3-030-23189-5
	Edizione	[1st ed. 2019.]
	Descrizione fisica	1 online resource (136 pages)
	Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
	Disciplina	535.2 621.381045
	Soggetti	Quantum optics Quantum theory Solid state physics Lasers Photonics Quantum Optics Quantum Physics Solid State Physics Optics, Lasers, Photonics, Optical Devices
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Nonlinear optical beams in nanodisordered photorefractive ferroelectrics -- Microscopy -- Miniaturized photogenerated electro-

optic axicon lens Gaussian-to-Bessel beam conversion -- Diraction-free light droplets for axially-resolved volume imaging -- Self-suppression of Bessel beam side lobes for high-contrast light sheet microscopy -- Microscopic reversibility, nonlinearity, and the conditional nature of single particle entanglement -- Super-crystals in composite ferroelectrics -- Intrinsic negative-mass from nonlinearity -- Rogue waves: transition to turbulence and control through spatial incoherence -- Appendix.

Sommario/riassunto

This book reports new findings in the fields of nonlinear optics, quantum optics and optical microscopy. It presents the first experimental device able to transform an input Gaussian beam into a non-diffracting Bessel-like beam. The modulation mechanism, i.e. electro-optic effect, allows the device to be fast, miniaturizable and integrable into solid state arrays. Also presented is an extensive study of the superposition of Bessel beams and their propagation in turbid media, with the aim of realizing field that is both localized and non-diffracting. These findings have been implemented in a light-sheet microscope to improve the optical sectioning. From a more theoretical point of view this work also tackles the problem of whether and how a single particle is able to entangle two distant systems. The results obtained introduce fundamental limitations on the use of linear optics for quantum technology. Other chapters are dedicated to a number of experiments carried out on disordered ferroelectrics including negative intrinsic mass dynamics, ferroelectric supercrystals, rogue wave dynamics driven by enhanced disorder and first evidence of spatial optical turbulence. .