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Collana	Mathematics for Industry, , 2198-350X ; ; 18
Disciplina	006.6869
Soggetti	Applied mathematics Engineering mathematics Optical data processing Computer science—Mathematics Computer mathematics Computer-aided engineering Mathematical and Computational Engineering Computer Imaging, Vision, Pattern Recognition and Graphics Mathematical Applications in Computer Science Computer-Aided Engineering (CAD, CAE) and Design
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	Part I Geometry -- A Geometric Approach to Elasticity, Contact and Design -- Computer Graphics in Minimal Surface Theory -- Explicit Formula and Extension of the Discrete Power Function Associated with the Circle Patterns of Schramm Type -- On Connectivity of Discretized 2D Explicit Curve -- Part II Animation -- Fast Implicit Simulation of Flexible Trees -- Probe-type Deformers -- Controllable Skeleton-sheets Representation via Shape Diameter Function -- Super resolution from Principal Component Models by RKHS Sampling -- Part III Visual Perception and Illusion -- From Mathematical Study of Visual Information Processing in the Brain to Image Processing -- Computational Creation of a New Illusionary Solid Sign with Shading Effect -- Part IV Simulation and Sampling -- Mathematical Model for

Epidermal Homeostasis -- A Prior Reduced Model of Dynamical Systems -- Real-time Volume Visualization for Large-scale Grid-based Fluid Simulations on Distributed Multi-GPU Systems -- Importance Sampling for Cloth Rendering under Environment Light.

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Sommario/riassunto

The material included in this book provides selected presentations given at the international symposium MEIS2014. The book aims to provide a unique venue where various issues in computer graphics (CG) application fields are discussed by mathematicians as well as CG researchers and practitioners. The target audience is not limited to researchers in academia but also those in industries with a strong interest in digital media creation, scientific visualization, and visual engineering. .

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