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Titolo	Rewiring the real : in conversation with William Gaddis, Richard Powers, Mark Danielewski, and Don DeLillo / / Mark C. Taylor
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- List of Illustrations -- neus -- 1. Counterfeiting Counterfeit Religion / Gaddis, William -- 2. Mosaics: Richard Powers, Plowing the Dark / Powers, Richard -- 3. Figuring Nothing: Mark Danielewski, House of Leaves / Danielewski, Mark -- 4. "Holy Shit!": Don DeLillo, Underworld -- 5. Concluding Unscientific Postscript: Two Styles of the Philosophy of Religion -- Acknowledgments -- Notes -- Index
Sommario/riassunto	Digital and electronic technologies that act as extensions of our bodies and minds are changing how we live, think, act, and write. Some welcome these developments as bringing humans closer to unified consciousness and eternal life. Others worry that invasive globalized technologies threaten to destroy the self and the world. Whether feared or desired, these innovations provoke emotions that have long fueled the religious imagination, suggesting the presence of a latent spirituality in an era mistakenly deemed secular and posthuman. William Gaddis, Richard Powers, Mark Danielewski, and Don DeLillo are American authors who explore this phenomenon thoroughly in their

work. Engaging the works of each in conversation, Mark C. Taylor discusses their sophisticated representations of new media, communications, information, and virtual technologies and their transformative effects on the self and society. He focuses on Gaddis's *The Recognitions*, Powers's *Plowing the Dark*, Danielewski's *House of Leaves*, and DeLillo's *Underworld*, following the interplay of technology and religion in their narratives and their imagining of the transition from human to posthuman states. Their challenging ideas and inventive styles reveal the fascinating ways religious interests affect emerging technologies and how, in turn, these technologies guide spiritual aspirations. To read these novels from this perspective is to see them and the world anew.

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Guided waves in structures for SHM : the time-domain spectral element method / [edited by] Wieslaw Ostachowicz ... [et al.]

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Soggetti

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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>Guided Waves in Structures for SHM; Contents; Preface; 1 Introduction to the Theory of Elastic Waves; 1.1 Elastic Waves; 1.1.1 Longitudinal Waves (Compressional/Pressure/Primary/P Waves); 1.1.2 Shear Waves (Transverse/Secondary/S Waves); 1.1.3 Rayleigh Waves; 1.1.4 Love Waves; 1.1.5 Lamb Waves; 1.2 Basic Definitions; 1.3 Bulk Waves in Three-Dimensional Media; 1.3.1 Isotropic Media; 1.3.2 Christoffel Equations for Anisotropic Media; 1.3.3 Potential Method; 1.4 Plane Waves; 1.4.1 Surface Waves; 1.4.2 Derivation of Lamb Wave Equations 1.4.3 Numerical Solution of Rayleigh-Lamb Frequency Equations 1.4.4 Distribution of Displacements and Stresses for Various Frequencies of Lamb Waves; 1.4.5 Shear Horizontal Waves; 1.5 Wave Propagation in One-Dimensional Bodies of Circular Cross-Section; 1.5.1 Equations of Motion; 1.5.2 Longitudinal Waves; 1.5.3 Solution of Pochhammer Frequency Equation; 1.5.4 Torsional Waves; 1.5.5 Flexural Waves; References; 2 Spectral Finite Element Method; 2.1 Shape Functions in the Spectral Finite Element Method; 2.1.1 Lobatto Polynomials; 2.1.2 Chebyshev Polynomials; 2.1.3 Laguerre Polynomials</p> <p>2.2 Approximating Displacement, Strain and Stress Fields 2.3 Equations of Motion of a Body Discretised Using Spectral Finite Elements; 2.4 Computing Characteristic Matrices of Spectral Finite Elements; 2.4.1 Lobatto Quadrature; 2.4.2 Gauss Quadrature; 2.4.3 Gauss-Laguerre Quadrature; 2.5 Solving Equations of Motion of a Body Discretised Using Spectral Finite Elements; 2.5.1 Forcing with an Harmonic Signal; 2.5.2 Forcing with a Periodic Signal; 2.5.3 Forcing with a Nonperiodic Signal; References; 3 Three-Dimensional Laser Vibrometry; 3.1 Review of Elastic Wave Generation Methods</p> <p>3.1.1 Force Impulse Methods 3.1.2 Ultrasonic Methods; 3.1.3 Methods Based on the Electromagnetic Effect; 3.1.4 Methods Based on the Piezoelectric Effect; 3.1.5 Methods Based on the Magnetostrictive Effect; 3.1.6 Photothermal Methods; 3.2 Review of Elastic Wave Registration Methods; 3.2.1 Optical Methods; 3.3 Laser Vibrometry; 3.4 Analysis of Methods of Elastic Wave Generation and Registration; 3.5 Exemplary Results of Research on Elastic Wave Propagation Using 3D Laser Scanning Vibrometry; References; 4 One-Dimensional Structural Elements; 4.1 Theories of Rods</p> <p>4.2 Displacement Fields of Structural Rod Elements 4.3 Theories of Beams; 4.4 Displacement Fields of Structural Beam Elements; 4.5 Dispersion Curves; 4.6 Certain Numerical Considerations; 4.6.1 Natural Frequencies; 4.6.2 Wave Propagation; 4.7 Examples of Numerical Calculations; 4.7.1 Propagation of Longitudinal Elastic Waves in a Cracked Rod; 4.7.2 Propagation of Flexural Elastic Waves in a Rod; 4.7.3 Propagation of Coupled Longitudinal and Flexural Elastic Waves in a Rod; References; 5 Two-Dimensional Structural Elements; 5.1 Theories of Membranes, Plates and Shells</p> <p>5.2 Displacement Fields of Structural Membrane Elements</p>
Sommario/riassunto	Understanding and analysing the complex phenomena related to elastic wave propagation has been the subject of intense research for many years and has enabled application in numerous fields of technology, including structural health monitoring (SHM). In the course of the rapid advancement of diagnostic methods utilising elastic wave propagation, it has become clear that existing methods of elastic wave modeling and analysis are not always very useful; developing numerical methods aimed at modeling and analysing these phenomena has become a necessity. Furthermore, any methods developed need to be

