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Titolo	Concepts and Methodologies for Modeling and Simulation : A Tribute to Tuncer Ören // edited by Levent Yilmaz
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Formato	Materiale a stampa
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I: Simulation Methodologies -- Toward Agent-Supported and Agent-Monitored Model-Driven Simulation Engineering -- Service Oriented Model Engineering and Simulation for System of Systems Engineering -- Research on High Performance Modeling and Simulation for Complex Systems -- Dynamic Data-Driven Simulation: Connecting Real Time Data with Simulation -- Part II: Modeling Methodologies -- Learning Something Right from Models that are Wrong – Epistemology of Simulation -- Managing Hybrid Model Composition Complexity: Human-Environment Simulation Models -- Transformation of Conceptual Models to Executable High Level Architecture Federation Models -- Using Discrete-Event Cell-Based Multi models for the Simulation of Evacuation Processes -- Part III: Quality Assurance and Reliability of Simulation Studies -- Quality Indicators throughout the Modeling and Simulation Life Cycle -- Verification, Validation and

Replication Methods for Agent-Based Modeling and Simulation: Lessons Learned the Hard Way! -- Comparisons of Validated Agent-Based Model and Calibrated Statistical Model -- Generalized Discrete Events for Accurate Modeling and Simulation of Logic Gates -- Part IV: Cognitive, Emotive and Social Simulation -- Specification and Implementation of Social Science Models -- Simulating Human Social Behaviors -- Part V: Body of Knowledge of Modeling & Simulation -- A Review of Extant M&S Literature through Journal Profiling and Co-Citation Analysis.

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#### Sommario/riassunto

This comprehensive text/reference presents cutting-edge advances in the theory and methodology of modeling and simulation (M&S), and reveals how this work has been influenced by the fundamental contributions of Professor Tuncer Ören to this field. Exploring the synergies among the domains of M&S and systems engineering (SE), the book describes how M&S and SE can help to address the complex problems identified as “Grand Challenges” more effectively under a model-driven and simulation-directed systems engineering framework. Topics and features: Examines frameworks for the development of advanced simulation methodologies Presents a focus on advanced modeling methodologies Reviews the reliability and quality assurance of models Discusses the specification and simulation of human and social behavior, including models of personality, emotions, conflict management, perception, and anticipation Provides a literature survey of the body of knowledge in M&S Highlights the conceptual, theoretical, and methodological foundations established by the pioneering work of Professor Tuncer Ören This authoritative volume offers inspiring and illuminating insights of benefit to all researchers, practitioners and graduate students in M&S, especially those interested in modeling complexity and simulating complex adaptive systems, and other Grand Challenges. Dr. Levent Yilmaz is a Professor in the departments of Computer Science and Software Engineering, and Industrial and Systems Engineering, at Auburn University, AL, USA.

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