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Generation Dilemma in Model-driven Software Engineering -- A Model-based Combination Language for Scheduling Verification -- Resolving The Asymmetry of On-Exit versus On-Entry in Executable Models of Behaviour -- A Role Modeling based Approach for Cyber Threat Analysis -- Static Data-Flow Analysis of UML/SysML Functional Views for Signal and Image Processing Applications -- Umple-TL: A Model-oriented, Dependency-free Text Emission Tool -- Model Driven Data Management in Healthcare -- The Art of Bootstrapping -- A Framework for Multi-level Modeling of Analog/Mixed Signal Embedded Systems -- Towards Multi-editor Support for Domain-Specific Languages Utilizing

the Language Server Protocol -- Executing Scenario-Based Specification with Dynamic Generation of Rich Events -- Evaluating the Multi-Variant Model Transformation of UML Class Diagrams to Java Models -- Modeling and Analysis of Partitions on Functional Architectures using EAST-ADL -- A Programming and Verification Framework for Flexible and Unrestricted Program Evolution -- Classifying Approaches for Constructing Single Underlying Models -- TRILATERAL: A Model-based Approach for Industrial CPS – Monitoring and Control.

## Sommario/riassunto

This book constitutes thoroughly revised and selected papers from the 7th International Conference on Model-Driven Engineering and Software Development, MODELSWARD 2019, held in Prague, Czech Republic, in February 2019. The 16 thoroughly revised and extended papers presented in this volume were carefully reviewed and selected from 76 submissions. They address some of the most relevant challenges being faced by researchers and practitioners in the field of model-driven engineering and software development and cover topics like language design and tooling; programming support tools; code and text generation from models, behavior modeling and analysis; model transformations and multi-view modeling; as well as applications of MDD and its related techniques to cyber-physical systems, cyber security, IoT, autonomous vehicles and healthcare.