

## Accepted Papers

### Session: Foundations of Conceptual Modeling

A FAIR Model Catalog for Ontology-Driven Conceptual Modeling Research

*Pedro Paulo F. Barcelos, Tiago Prince Sales, Mattia Fumagalli, Claudenir M. Fonseca, Isadora Valle Sousa, Elena Romanenko, Joshua Kritz and Giancarlo Guizzardi*

Incorporating High-Order Types in Ontology-Driven Conceptual Modeling

*Claudenir M. Fonseca, Giancarlo Guizzardi, Joao Paulo A. Almeida, Tiago Prince Sales and Daniele Porello*

Rethinking Model Representation - A Taxonomy of Advanced Information Visualization in Conceptual Modeling

*Giuliano De Carlo, Philip Langer and Dominik Bork*

Pattern Discovery in Conceptual Models Using Frequent Itemset Mining (short)

*Mattia Fumagalli, Tiago Prince Sales and Giancarlo Guizzardi*

### Session: Ontologies and their Applications

Legal Power-Subjection Relations: Ontological Analysis and Modeling Pattern

*Cristine Griffo, Tiago Prince Sales, Joao Paulo A. Almeida and Giancarlo Guizzardi*

Atomically True Ontology Modelling: Residential Buildings (short)

*Atish Maganlal and Duncan Coulter*

An Ontological Analysis of Digital Technology (short)

*Silvia Boguea Gomes, Flavia Maria Santoro and Miguel Mira da Silva*

"All the Things that Come and Go, Stop and Say Hello": Towards an Ontological Account of How Participants Enter and Exit Events (short)

*Fabricio Henrique Rodrigues, Joel Luís Carbonera, Lucas Valadares Vieira and Mara Abel*

### Session: Applications of Conceptual Modeling

Characterizing Fake News: A Conceptual Modeling-based Approach

*Nicolas Belloir, Wassila Ouerdane and Oscar Pastor*

Modeling Lifelong Pathway Co-Construction

*Nicolas Ringuet, Patrick Marcel, Nicolas Labroche, Thomas Devogele and Christophe Bortolaso*

LIREM: A Generic Framework for Effective Online Video Novelty Detection

*Chengkun He, Xiangmin Zhou and Chen Wang*

When IT Service Adoption meets Behavioral Economics: Addressing Present Bias Challenges

*Iris Reinhartz-Berger, Doron Kliger, Eliad Amsalem and Alan Hartman*

### Session: Data Modeling and Analysis

Discovery of Spatial Association Rules from Fuzzy Spatial Data

*Henrique P. da Silva, Thiago D.R. Felix, Pedro V. A. B. de Venâncio and Anderson C. Carniel*

A Comprehensive Approach for the Conceptual Modeling of Genomic Data

*Anna Bernasconi, Alberto García S., Stefano Ceri and Oscar Pastor*

A Deep Learning Approach for Ideology Detection and Polarization Analysis using COVID-19 Tweets  
*Md Yasin Kabir and Sanjay Madria*

Effective Generation of Relational Schema from Multi-Model Data with Reinforcement Learning  
(short)  
*Gongsheng Yuan, Jiaheng Lu and Zhengtong Yan*

### **Session: Business Process**

Ontology-Supported Modeling of Bots in Robotic Process Automation  
*Maximilian Völker and Mathias Weske*

Stra2Bis: A Model-Driven Framework for Aligning Business Strategy and Business Processes  
*Rene Noel, Jose Ignacio Panach, Marcela Ruiz and Oscar Pastor*

Online Decision Mining and Monitoring in Process-Aware Information Systems (short)  
*Beate Scheibel and Stefanie Rinderle-Ma*

OPerA: Object-Centric Performance Analysis (short)  
*Gyunam Park, Jan Niklas Adams and Wil M. P. van der Aalst*

### **Session: Quality and Performance**

Bidirectional Relation Attention for Entity Alignment Based on Graph Convolutional Network  
*Yayao Zuo, Minghao Zhan, Yang Zhou, and Peilin Zhan*

A Behavioural Analysis of Metadata Use in Evaluating the Quality of Repurposed Data  
*Hui Zhou, Lei Han, Gianluca Demartini, Marta Indulska and Shazia Sadiq*

Modeling Context for Data Quality Management (short)  
*Flavia Serra, Verónica Peralta, Adriana Marotta and Patrick Marcel*

A Modeling Rule for Improving the Performance of Graph Models  
*Dietrich Steinmetz, Felix Merz, Gerrit Burmester, Hui Ma and Sven Hartmann*

### **Session: Security, Privacy and Risk Management**

Object Normal Form, Fourth Normal Form and their Application to Database Security  
*Sebastian Link*

An Ontology of Security from a Risk Treatment Perspective  
*Ítalo Oliveira, Tiago Prince Sales, Riccardo Baratella, Mattia Fumagalli and Giancarlo Guizzardi*

Modeling Cybercrime with UFO-L: an Ontological Analysis of Non-Consensual Pornography Cases  
*Mattia Falduti and Cristine Griffo*

### **Session: Goals and Requirements**

Modeling Rates of Change and Aggregations in Runtime Goal Models  
*Rebecca Morgan, Simon Pulawski, Matt Selway, Wolfgang Mayer, Georg Grossmann, Markus Stumptner, Aditya Ghose, and Ross Kyprianou*

Trying to Elicit and Assign Goals to the Right Actors (short)  
*Anouck Chan, Anthony Fernandes Pires and Thomas Polacsek*

Law Modeling for Fairness Requirements Elicitation in Artificial Intelligence Systems (short)  
*Ana Lavalle, Alejandro Maté, Juan Trujillo and Jorge García-Carrasco*