

## Accepted Papers

### Session: Foundations of Conceptual Modeling

A FAIR Model Catalog for Ontology-Driven Conceptual Modeling Research  
*Pedro Paulo Favato Barcelos, Tiago Prince Sales, Mattia Fumagalli, Claudenir Morais Fonseca, Isadora Valle Sousa, Elena Romanenko, Joshua Kritz and Giancarlo Guizzardi*

Incorporating High-Order Types in Ontology-Driven Conceptual Modeling  
*Claudenir Fonseca, Giancarlo Guizzardi, Joao Paulo 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 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)  
*Fabricao H. Rodrigues, Joel Luis Carbonera, Mara Abel and Lucas Valadares Vieira*

### 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 Pigozzo da Silva, Thiago Felix, Pedro de Venâncio and Anderson Chaves 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  
*Sanjay Madria and Md Yasin Kabir*

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 Navarrete, 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 van der Aalst*

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

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

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 Data 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  
*Cristine Grippo and Mattia Falduti*

### **Session: Goal and Requirements**

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