



August 28th - September 1st, 2023 – Tokyo, Japan

## Program



Monday August 28<sup>th</sup> 2023

Registration  
09:10 - 09:30

*Second Tutorial on the Universal Variability Language*  
Sebastian Krieter, Kevin Feichtinger, José A. Galindo, David Benavides, Rick Rabiser, Chico Sundermann and Thomas Thüm

Second Tutorial on the Universal Variability Language  
09:30 - 10:30

Coffee Break  
10:30 - 11:00

Second Tutorial on the Universal Variability Language  
11:00 - 12:30

Lunch  
12:30 - 13:30

VariVolution 2023

Opening  
13:30 - 13:40

*Analyzing Variability in Space and Time of Products from a Product Line using Triadic Concept Analysis*  
Alexandre Bazin, Marianne Huchard and Pierre Martin

13:40 - 14:10

*On the Reuse of Existing Configurations for Testing Evolving Feature Models*  
Andrea Bombarda, Silvia Bonfanti and Angelo Gargantini

14:10 - 14:40

*Variability and Evolution of Railway Vehicle Product Lines – Challenge Related to Customer Application Specific Use Cases*

Henrik Gustavsson

14:40 - 15:00

Coffee Break  
15:00 - 15:30

*DSDGen: Extracting Documentation to Comprehend Fork Merges*  
Jacob Krüger, Alex Mikulinski, Sandro Schulze, Thomas Leich and Gunter Saake

15:30 - 16:00

*Software Product Lines for Development of Evolutionary Robots*  
Sören Nienaber, Mohammad Divband Soorati, Arash Ghasemzadeh and Javad Ghofrani

16:00-16:30

*Generative AI for Reengineering Variants into Software Product Lines: An Experience Report*  
Mathieu Acher and Jabier Martinez

16:30 - 16:50

Discussion Kick Off

16:50 - 17:30

Coffee Break  
17:30 - 18:00

Discussion  
18:00 - 18:45

Result Collection & Closing

18:45 - 19:00

Tuesday August 29<sup>th</sup> 2023

Registration  
08:30 - 9:00

*Automata Learning for DSPL*  
Mohammad Reza Mousavi

Automata Learning for DSPL  
09:00 - 10:30

Coffee Break  
10:30 - 11:00

Automata Learning for DSPL  
11:00 - 12:30

Lunch  
12:30 - 14:00

Doctoral Symposium

Keynote - *37 Essential Features of your Ph.D. Supervisor*  
Philippe Collet  
(chair: Shaukat Ali)  
14:00 - 14:45

*Variability-aware Behavioural Learning*  
Sophie Fortz  
14:45 - 15:30

Coffee Break  
15:30 - 16:00

Doctoral Symposium

*A configurable approach to cyber-physical systems  
fuzzing*  
Guillaume Nguyen  
16:00 - 16:45

*Continuous product updates under consideration of  
HW-and SW-Releases - the potential of product  
structuring concepts*  
Philipp Zellmer  
16:45 - 17:30

Hybrid Industry Challenges Workshop

Hybrid Industry Challenges Workshop  
16:00 - 19:00

Wednesday August 30<sup>th</sup> 2023  
Morning

Registration  
08:30 - 08:45

Opening  
08:45 - 09:00

Keynote 1 - *Data-intensive product lines: embracing past results and new variability challenges*

David Benavides  
09:00 - 10:00

Variability Management 1  
(Chair: Mohammad Mousavi)  
10:00 - 10:30

*Taming the Diversity of Computational Notebooks*

Yann Brault, Yassine El Amraoui, Mireille Blay-Fornarino, Philippe Collet, Florent Jaillet and Frédéric Precioso

10:00 - 10:15

*A Comparison of Visualization Concepts and Tools for Variant-Rich System Engineering*

Siyue Chen, Loek Cleophas and Jacob Krüger

10:15 - 10:30

Coffee Break  
10:30 - 11:00

Analysis, Refactoring and Tools I  
(Chair: Jacob Krüger)

11:00 - 12:45

*Reusing Your Favourite Analysis Framework to Handle Workflows of Product Line Models*

Logan Murphy, Alessio Di Sandro, Ramy Shahin and Marsha Checkik

11:00 - 11:20

*Views on Edits to Variational Software*

Paul Maximilian Bittner, Alexander Schultheiß, Sandra Greiner, Benjamin Moosherr, Sebastian Krieter, Christof Tinnes, Timo Kehrer and Thomas Thüm

11:20 - 11:40

*Code-Level Functional Equivalence Checking of Annotative Software Product Lines*

Shuolin Wang, Nick Feng and Marsha Checkik

11:40 - 12:00

*GIS-Publisher: From a Geographic Data Set to a Deployed Product with One Command*

David de Castro Celard, Alejandro Cortiñas, Victor Lamas and Miguel Rodríguez Luaces

12:00 - 12:10

*FLAMA. A collaborative effort to build a new framework for the automated analysis of feature models*

José A. Galindo, José Miguel Horcas Aguilera, Alexander Felfernig, David Fernandez-Amoros and David Benavides

12:10 - 12:30

*The e4CompareFramework: Annotation-based Software Product-Line Extraction*

Kamil Rosiak and Ina Schaefer

12:20 - 12:30

*Generating Pairwise Covering Arrays for Highly Configurable Software Systems*

Chuan Luo, Jianping Song, Qiyuan Zhao, Yibei Li, Shaowei Cai and Chunming Hu

12:30 - 12:45

Lunch

12:45 - 14:00

Wednesday August 30<sup>th</sup> 2023  
Afternoon

Variability Management II

(Chair: José A. Galindo)

14:00 - 15:40

*VariantInc: Automatically Pruning and Integrating Versioned Software Variants*

Sebastian Krieter, Jacob Krüger, Thomas Leich and Gunter Saake

14:00 - 14:20

*True Variability Shining Through Taxonomy Mining*

Christoph König, Loek Cleophas, Kamil Rosiak and Ina Schaefer

14:20 - 14:40

*Managing Cyber-Physical Production Systems Variability using V4rdiac: Industrial Experiences*

Hafiyyan Sayyid Fadhlillah, Antonio Manuel Gutierrez, Rick Rabiser and Alois Zoitl

14:40 - 15:00

*Balancing Variability and Costs in Software Product Lines: An Experience Report in Safety-Critical Systems*

Udo Knop, Peter Hofman, Michael Mihatsch and Martin Siegmund

15:00-15:20

*Software Variability in Service Robots (Summary)*

Sergio García, Daniel Strüber, Davide Brugali, Alessandro Di Fava, Philipp Schillinger, Patrizio Pelliccione and

Thorsten Berger

15:20 - 15:35

Coffee Break

15:40 - 16:10

AI & Novel Paradigms

(Chair: Luca Paolini)

16:10 - 18:00

*Quantum Computing for Feature Model Analysis: Potentials and Challenges*

Domenik Eichhorn, Tobias Pett, Tobias Osborne and Ina Schaefer

16:10 - 16:25

*On Programming Variability with Large Language Model-based Assistant*

Mathieu Acher, Jean-Marc Jézéquel and José A. Galindo

16:25 - 16:40

*Large Language Models to generate meaningful feature model instances*

José A. Galindo, Antonio J Dominguez, Jules White and David Benavides

16:40 - 17:00

*VariMod: A Structured Approach to Variability in 3D Modelling*

Jef Jacobs, Jens Nicolay and Wolfgang De Meuter

17:00 - 17:20

*Product-Structuring Concepts for Automotive Platforms: A Systematic Mapping Study*

Philipp Zellmer, Lennart Holsten, Thomas Leich and Jacob Krüger

17:20 - 17:40

*Managing Variability of Logistics Robot System: Experience at Hitachi*

Kentaro Yoshimura, Yuta Yamauchi and Hideo Takahashi

17:40 - 18:00

pure-systems Sponsor Talk - *20+ years PLE – Did we change the world?*

Danilo Beuche

18:10 - 18:30

Reception

18:30 - 21:00

Thursday August 31<sup>st</sup> 2023

Registration  
08:30 - 09:00

Keynote 2 - *The 20-year journey of SPLE in Hitachi and the next*  
Hideto Ogawa, Kentaro Yoshimura  
09:00 - 10:00

MIP Award talk  
10:00 - 10:30

Coffee Break  
10:30 - 11:00

Variability Realization & Tools II  
(Chair: Wesley K. G. Assuncao)  
11:00 - 12:45

*Deltas for Functional Programs with Algebraic Data Types*  
Ferruccio Damiani, Eduard Kamburjan, Michael Lienhardt and Luca Paolini  
11:00 - 11:20

*An Action-based Model to Handle Cloning and Adaptation in Tabular Data Applications*  
Nassim Bounouas, Mireille Blay-Fornarino and Philippe Collet  
11:20 - 11:40

*Approaching Pattern Catalogues for Variability Realization in Model-Based Systems and Software Engineering*  
Andreas Pollom, Martin Becker, Philippe Barbie, Shubha Kikkeri Tumalla, Markus Andres and Robert Hellebrand  
11:40 - 12:00

*UVLParser: Extending UVL with Language Levels and Conversion Strategies*  
Chico Sundermann, Stefan Vill, Thomas Thüm, Kevin Feichtinger, Prankur Agarwal, Rick Rabiser, José A. Galindo and David Benavides  
12:00 - 12:10

*UVLS: A Language Server Protocol For UVL*  
Jacob Loth, Chico Sundermann, Tobias Schrull, Thilo Brugger, Felix Rieg and Thomas Thüm  
12:10 - 12:20

*PYDOP: A Generic Python Library for Delta-Oriented Programming*  
Michael Lienhardt  
12:20 - 12:30

*InTra: Automatic Reduction of Model Complexity and Generation of System Variants – A Tool Demonstration*  
Philippe Barbie, Vasil Tenev and Martin Becker  
12:30 - 12:40

Lunch  
12:45 - 14:00

Panel - Intelligent Software Product Lines  
Mathieu Acher, Maxime Cordy, Marianne Huchard, Kentaro Yoshimura  
(Mediators: Gilles Perrouin & Iris Reinhartz-Berger)  
14:00 - 15:30

Coffee Break  
15:30 - 16:00

Presentation of the results of the industrial workshop  
16:00 - 16:30

Leisure Time  
at Happo-En  
18:30 - 19:00

Banquet  
at Happo-En  
19:00 - 21:00

Friday September 1<sup>st</sup> 2023

Registration  
08:30 - 09:00

Keynote 3 - *Chronicles of Concept Lattices: Unveiling Structure in the Software World*  
Marianne Huchard  
09:00 - 10:00

Townhall Meeting  
10:00 - 10:30

Coffee Break  
10:30 - 11:00

Verification & Testing  
(Chair: Tomoji Kishi)  
11:00 - 12:45

*Family-based model checking of fMultiLTL properties*  
Aleksandar Dimovski, Sami Lazreg, Maxime Cordy and Axel Legay  
11:00 - 11:20

*Feature-oriented Test Case Selection during Evolution of High-Configurable Systems*  
Willian Douglas Ferrari Mendonça, Wesley K. G. Assunção and Silvia Regina Vergilio  
11:20 - 11:40

*Continuous T-Wise Coverage*  
Tobias Pett, Tobias Heß, Sebastian Krieter, Thomas Thüm and Ina Schaefer  
11:40 - 12:00

*Test Scenario Generation for Feature-Based Context-Oriented Software Systems*  
Pierre Martou, Kim Mens, Benoît Duhoux and Axel Legay  
12:00 - 12:15

*Model-based Testing for a Family of Mobile Applications: Industrial Experiences*  
Stefan Fischer, Rudolf Ramler, Wesley K. G. Assunção, Alexander Egyed, Christian Gradl and Sebastian Auberger  
12:15 - 12:35

Lunch  
12:45 - 14:00

Feature Model Analysis & Evolution Approaches  
(Chair: Mathieu Acher)  
14:00 - 15:20

*Belief-Driven Software Product Line Development and Evolution*  
Lola Burgueño, José Miguel Horcas and Jörg Kienzle  
14:00 - 14:15

*Analysis Operations On The Run: Beyond Static Feature Model Analysis*  
Sebastian Lubos, Alexander Felfernig, Viet-Man Le, Thi Ngoc Trang Tran, David Benavides, José Zamudio and Damian Garber  
14:15 - 14:30

*Adapting the Database to Feature Changes in Software Product Lines*  
Alejandro Cortiñas, Miguel Rodríguez Luaces, Oscar Pedreira and Ángeles S. Places  
14:30 - 14:45

*Elimination of constraints for parallel analysis of feature models*  
José Miguel Horcas, Joaquín Ballesteros, Mónica Pinto and Lidia Fuentes  
14:45 - 15:05

*How to Retire and Replace a Software Product Line*  
Alejandro Cortiñas, Jacob Krüger, Victor Lamas, Oscar Pedreira and Miguel R. Luaces  
15:05 - 15:20

Hall of Fame and Closing  
15:20 - 15:50

## Local Information

### Wireless

The *eduroam* roaming service is available. You can use your account if your university provides the access. Otherwise, take an account sheet at the reception desk.

### Lunch

Bento (box lunch) is provided for lunch. Free space is available in the room next to the room where the sessions are held.

### Vending Machines and Convenience Stores

You can find vending machines for cold drinks near the conference rooms. There are more on the third floor. There are two convenience stores nearby, 7-ELEVEN and ministop, where you can buy drinks, snacks, sandwiches, and daily necessities but you should avoid the rush hour around noon.

### Reception

Reception is held at 6:30pm on Wednesday in the same floor. Light meals are provided with Japanese beer and other drinks.

### Banquet

The banquet is held at Happa-en on Thursday. It takes 25-30 min. to reach there from the conference venue. The banquet starts at 7pm but you can walk around the garden before it.

You can find the detailed directions on the web site (“Program - SPLC Banquet”).

It is easy to reach by taking the Mita line from Jimbocho (station I-10) to Shirokanedai (I-02). But be careful that some trains terminate at the previous station, Shirokane-takanawa (I-03).

At the Shirokanedai station, go out from Exit 2, turn left, then you will find the large sign of Happa-en.