



Montréal 2020

24th ACM International Systems and Software Product Line Conference

WEESR and REVE Workshop

**Experiences and Empirical Studies on Software Reuse
Reverse Engineering for Variability**

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24th ACM International Systems and Software Product Line Conference

WEESR and REVE Workshop

Opening and welcome notes

WEESR & REVE Organizers

Jaime Chavarriaga, Universidad de Los Andes, Colombia



Julio Ariel Hurtado, Universidad del Cauca, Colombia



Wesley K. G. Assunção, Federal University of Technology - Paraná (UTFPR), Brazil



Mathieu Acher, Irisa, Inria and University of Rennes 1, Rennes, France



Tewfik Ziadi, Sorbonne University, UPMC Univ Paris 06, CNRS, Paris, France



Jabier Martinez, Software and Systems Lifecycle Innovation, TecNALIA, Spain



History of WEESR

Workshop on Experiences and Empirical Studies on Software Reuse
(3rd edition today)

*An space where **researchers and practitioners** can present their **experiences and studies on the area of software reuse**, discuss the **challenges that must be overcome** in non-academic environments and obtain feedback on **how the corresponding empirical research may be conducted and improved***

- WEESR@ICAI 2018
- WEESR@SPLC 2019

History of REVE

Workshop on Reverse Engineering for Variability (8th edition today)

*This workshop aims to foster research about making the most of the two main inputs for **SPL migration**:*

*1) **domain knowledge** and 2) **legacy assets***

Processes, techniques, tools, or empirical studies** related to the automatic, semi-automatic or manual **extraction or refinement of SPL assets

- **REVE@SPLC** from 2014 to 2020
- **REVE@CSMR** 2013

Titles & abstracts



Paper presentations

- **A multi-company empirical evaluation of a framework that evaluates the convenience of adopting product line engineering**
Luisa Fernanda Rincón Pérez, Raul Mazo and Camille Salinesi
- **Experience Report on Variability Improvement in a Product Line Engineering Unaware Company**
David Morais Ferreira, Martin Becker and Vasil L. Tenev
- **Enhancing the Feature Retrieval Process with Scoping and Tool Support – PAXSPL_v2**
Luciano Marchezan, João Carbonell, Elder Rodrigues, Maicon Bernardino, Fábio Basso and Wesley K. G. Assunção
- **A Comparative Study on Variability Code Analysis Technology**
Suparna S. Nair, Martin Becker and Vasil Tenev

Paper presentations

- **A multi-company empirical evaluation of a framework for the convenience of adopting product line engineering**

Luisa Fernanda Rincón Pérez, Raul Mazo and Camille S.

- **Experience Report on Variability Improvement in a Product Line at Unaware Company**

David Morais Ferreira, Martin Becker and Vasil L. Tenev

- **Enhancing the Feature Retrieval Process with Scoping in PAXSPL_v2**

Luciano Marchezan, João Carbonell, Elder Rodrigues, M. Basso and Wesley K. G. Assunção

- **A Comparative Study on Variability Code Analysis Techniques**

Suparna S. Nair, Martin Becker and Vasil Tenev

Experiences
and lessons
learned

Technologies

Paper presentations with discussants

- **A multi-company empirical evaluation of a framework that evaluates the convenience of adopting product line engineering**
Luisa Fernanda Rincón Pérez, Paul Mazo and Camille Salinesi
- **Experience Report on Variability Improvement in a Product Line Engineering Unaware Company**
David Moraes Ferreira, Martin Becker and Vasil L. Tenev
- **Enhancing the Feature Retrieval Process with Scoping and Tool Support – PAXSPL v2**
Luciano Marchezan, João Carbonell, Elder Rodrigues, Maicon Bernardino, Fábio Basso and Wesley K. G. Assunção
- **A Comparative Study on Variability Code Analysis Technology**
Suparna S. Nair, Martin Becker and Vasil Tenev

Thanks to the PC

REVE

- **Barbara Gallina**, Mälardalen University, Sweden
- **Djamel Eddine Khelladi**, DIVERSE Team, IRISA-INRIA, CNRS, Université Rennes 1, France
- **Eduardo Figueiredo**, Federal University of Minas Gerais (UFMG), Brazil
- **Elder de Macedo Rodrigues**, Universidade Federal do Pampa, Brazil
- **Jaime Font**, University San Jorge, Spain
- **Jennifer Perez**, Universidad Politécnica de Madrid, Spain
- **João Bosco Ferreira Filho**, Federal University of Ceara, Brazil
- **José Galindo**, University of Sevilla, Spain
- **Lukas Linsbauer**, Technical University of Braunschweig, Germany
- **Marianne Huchard**, LIRMM, Université de Montpellier and CNRS, France
- **Oscar Diaz**, University of the Basque Country, Spain
- **Oystein Haugen**, Østfold University College, Norway
- **Sebastian Herold**, Karlstad University, Department of Computer Science, Sweden
- **Serge Demeyer**, University of Antwerp, Belgium

WEESR

- **David Benavides**, Universidad de Sevilla, Spain
- **Rick Rabiser**, Johannes Kepler University, Austria
- **Thomas Fogdal**, Danfoss Power Electronics A/S, Denmark
- **José Galindo**, Universidad de Sevilla, Spain
- **Jabier Martinez**, Tecnalia, Spain
- **Marianne Huchard**, LIRMM, Université de Montpellier and CNRS, France
- **María Cecilia Bastarrica**, Universidad de Chile, Chile
- **Martin Becker**, Fraunhofer Institute for Experimental Software Engineering (IESE), Germany
- **María Constanza Pabón**, Pontificia Universidad Javeriana, Colombia
- **Daniel Perovich**, Universidad de Chile, Chile
- **Pedro Rossel**, Universidad Católica de la Santísima Concepción, Chile
- **Germán Urrego**, Universidad de Antioquia, Colombia
- **Helga Duarte**, Universidad Nacional de Colombia, Colombia
- **Leticia Montalvillo**, IKERLAN, Spain





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**A journey towards
Software Product Line
Engineering
for an
industrial hard real-time
embedded platform**

Dr.-Ing. Sten Grüner, *Senior Scientist*
ABB Corporate Research Center Germany



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A Perspective on Software Reuse in Industrial Practice and Academic Research

Prof. Thorsten Berger

Associate Professor at Chalmers
University of Gothenburg, Germany














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Empirical Software Product Line Engineering A Systematic Literature Review

Prof. David Benavides Cuevas

Data Centric Research Hub. <http://www.lsi.us.es/~dbc/>
Universidad de Sevilla, Spain

	8:45	A journey towards Software Product Line Engineering for an industrial hard real-time embedded platform. Dr.-Ing. <u>Sten Grüner</u>
	9:25	A multi-company empirical evaluation of a framework that evaluates the convenience of adopting product line engineering. <u>Luisa Fernanda Rincón Pérez</u> , Raul Mazo and Camille Salinesi
	9:50	Status of the Handbook of Re-engineering Software Intensive Systems into Software Product Lines Roberto E. Lopez-Herrejon, Jabier Martinez, Tewfik Ziadi, Mathieu Acher, <u>Wesley K. G. Assunção</u> , Silvia R. Vergilio
	10:00	<i>Break (30 min)</i>
	10:30	Experience Report on Variability Improvement in a Product Line Engineering Unaware Company David Morais Ferreira, <u>Martin Becker</u> and Vasil L. Tenev
	10:55	Enhancing the Feature Retrieval Process with Scoping and Tool Support – PAXSPL_v2 <u>Luciano Marchezan</u> , João Carbonell, Elder Rodrigues, Maicon Bernardino, Fábio Basso and Wesley K. G. Assunção
	11:20	A Perspective on Software Reuse in Industrial Practice and Academic Research Dr. <u>Thorsten Berger</u>
	12:00	<i>Break (30 min)</i>
	12:30	A Comparative Study on Variability Code Analysis Technology. <u>Suparna S. Nair</u> , Martin Becker and Vasil Tenev
	12:55	Discussion
	13:35	Empirical software product line engineering: A systematic literature review. Dr. <u>David Benavides</u>
	14:00	Closing notes

Online workshop

- If you are not the current keynote or paper presenter

- Please



- Questions and Answers (Q&A)

- Moderated by the organizers

- Use the virtual “Raise your hand” mechanism to use video/voice for your question
 - Or use the chat to write your question





8:45

A journey towards Software Product Line Engineering for an industrial hard real-time embedded platform.
Dr.-Ing. Sten Grüner



9:2



9:4



10



10



10



11:1



12



12



13



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**A journey towards
Software Product Line
Engineering
for an
industrial hard real-time
embedded platform**

Dr.-Ing. Sten Grüner, *Senior Scientist*
ABB Corporate Research Center Germany

neering.

14:00

Closing notes