



13th IEEE Working Conference on  
Software Visualization (VISSOFT)

September, 2025  
Auckland, Aotearoa, New Zealand  
<https://vissoft.info/2025/>



**Kia ora / Welcome to VISSOFT 2025!**



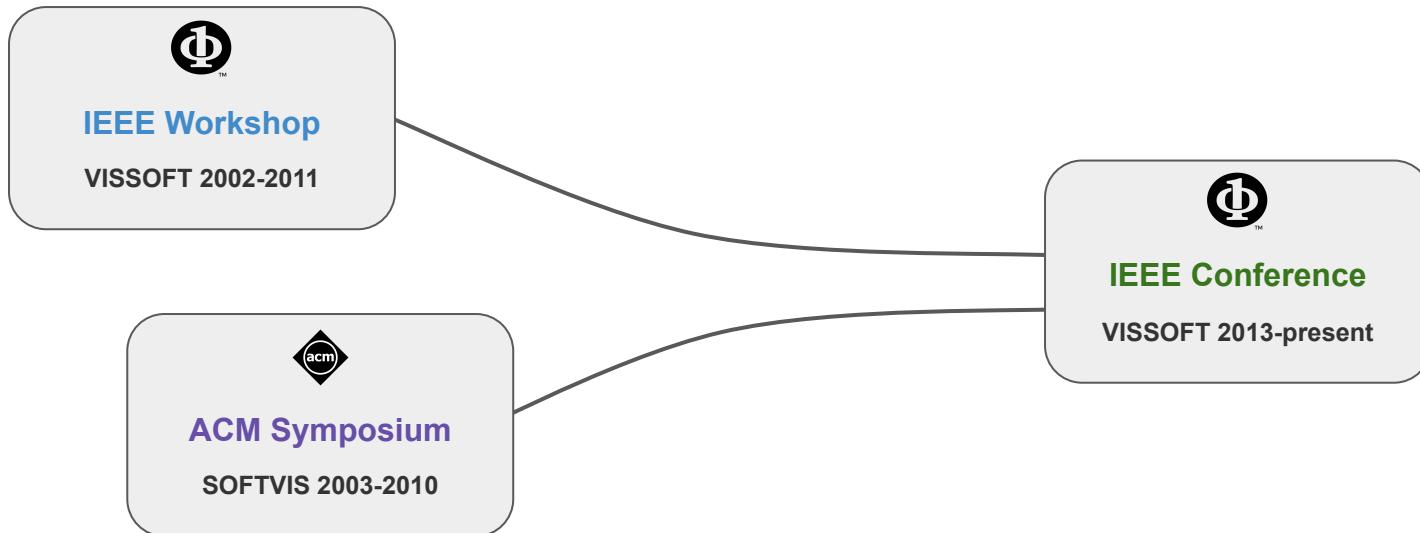
# A Bit of History



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# A Bit of History



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**Bonita Sharif**



**Lionel Merino**



**Roberto Minelli**



**Fabio Petrillo**



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Nebraska  
USA

Pontificia Universidad  
Católica  
Chile

Software Institute  
(USI)  
Switzerland

École de Technologie  
Supérieure  
Canada

IT University of  
Copenhagen  
Denmark

Term ends

Term ends

Term ends

# Organization



**Craig Anslow**  
General Co-Chair



**Leonel Merino**  
General Co-Chair



**Jesus Gonzalez-Barahona**  
Program Co-Chair



**Raula Gaikovina Kula**  
Program Co-Chair



**Alexandre Bergel**  
MIP Co-Chair



**Takashi Ishio**  
MIP Co-Chair



**Fabio Petrillo**  
Proceedings Chair



**Mujtaba Alshakhouri**  
Publicity Chair



**Viola Ganninger**  
Web Chair



# One PC to Rule Them All



13th IEEE Working Conference  
on Software Visualization

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University of Chile, Chile

## Alexandre Telea

University of Groningen,  
Netherlands

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States

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Software Institute, Università  
della Svizzera italiana,  
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## Steven Costiou

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France

## Takashi Kobayashi

Tokyo Institute of Technology,  
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## Wilhelm Hasselbring

## Alexandra Diehl

University of Zurich,  
Switzerland

## Andrea Mocci

Software Institute, Università  
della Svizzera italiana,  
Switzerland

## Andreas Kerren

Linköping University and  
Linnaeus University, Sweden

## Andreas Schreiber

German Aerospace Center  
(DLR), Germany

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Federal University of Rio  
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University of Arizona, United  
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## Gema Rodríguez- Pérez

University of British  
Columbia, Canada

## Gregorio Robles

Universidad Rey Juan Carlos,  
Spain

## James Noble

Creative Research &  
Programming, New Zealand

## Jesús M. González- Barahona

Universidad Rey Juan Carlos,  
Spain

## Jun Tao

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## Rainer Koschke

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Osaka University, Japan

## Richard Müller

Bundesdruckerei GmbH,  
Germany

## Shinpei Hayashi

Institute of Science Tokyo,  
Japan

## Stephan Diehl

University Trier, Germany  
KIT University, Germany

## Yusuf Sulisty Nugroho

Universitas Muhammadiyah  
Surakarta, Indonesia

# Co-located Events



## IEEE International Conference on Software Maintenance and Evolution (ICSME) 2025

<https://conf.researchr.org/home/icsme-2025>

easyconferences

thank you



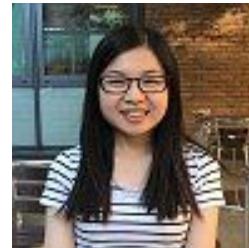
**Cristina Cifuentes**  
SCAM 2025 General Chair



**Amjad Tahir**  
General Co-Chair



**Stephen MacDonell**  
General Co-Chair



**Cuiyun Gao**  
Artifact Evaluation  
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**Kevin Moran**  
Artifact Evaluation  
Co-Chair

# Facts & Figures



13th IEEE Working Conference  
on Software Visualization

Event	Full papers	NIER/TD Papers	Artifact evaluation	Journal First	MIP Award	Tools	Challenge
VISSOFT 2018	10/18 (55%)	6/10	3/4		✓		
VISSOFT 2019	8/13 (61%)	5/10	3/3		✓		
VISSOFT 2020	10/20 (50%)	5/7	3/3		✓		
VISSOFT 2021	9/23 (39%)	14/16	3/4	2/3	✓		
VISSOFT 2022	13/18 (72%)	8/12	7/7	1/1	✓		
VISSOFT 2023	7/11 (64%)	5/6	1/1	!	✓✓		
VISSOFT 2024	8/13 (62%)	9/13	2/2	1/1	✓		
VISSOFT 2025	5/8 (62%)	7/8	2/2	!	✓	3/7	7/7

# Program

## Sun, Sept 7



13th IEEE Working Conference  
on Software Visualization

Time	Event	Session Chair	Location
UTC+12:00			
08:00 - 08:45	<b>Registration (in agreement with ICSME)</b>		Level 0, Foyer
08:45 - 09:00	<b>Opening</b>	Leonel Merino, Craig Anslow, Jesus M. Gonzalez Barahona, Raula Gaikovina Kula	Room 260-040
09:00 - 10:00	<b>Keynote by James Noble</b> Software, Abstraction, and Visualisation	Craig Anslow	Room 260-040
10:00 - 10:30	<b>Coffee Break + Group Picture!</b>		Level 0, Foyer
10:30 - 12:00	<b>1st Papers Session</b>	David Moreno-Lumbreras	Room 260-040
12:00 - 13:30	<b>Lunch Break</b>		Level 0, Foyer
13:30 - 15:00	<b>2nd Papers Session</b>	Gregorio Robles	Room 260-040
15:00 - 15:30	<b>Coffee Break</b>		Level 0, Foyer
15:30 - 17:00	<b>Tools, Posters &amp; Challenge</b>		

# Program

## Mon, Sept 8



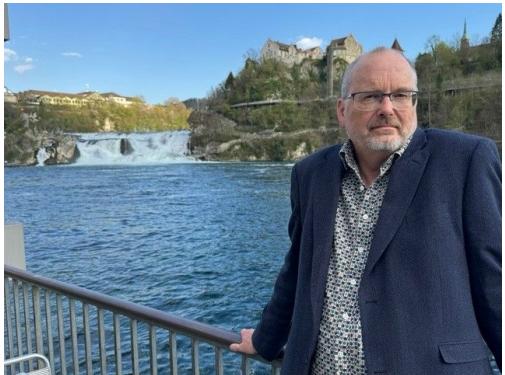
13th IEEE Working Conference  
on Software Visualization

Time	Event	Session Chair	Location
UTC-09:00			
08:45 - 10:00	<b>Joint Keynote with SCAM by Rob O'Callahan</b> Visualizing Program State in the Pernosco Debugger	Craig Anslow, Leonel Merino	Room 260-051
10:00 - 10:30	<i>Coffee Break</i>		<i>Level 0, Foyer</i>
10:30 - 12:00	<b>3rd Papers Session</b>	Malte Hansen	Room 260-040
12:00 - 13:30	<i>Lunch Break</i>		<i>Level 0, Foyer</i>
13:30 - 15:00	<b>4th Papers Session</b>	Takashi Kobayashi	Room 260-040
15:00 - 15:30	<i>Coffee Break</i>		<i>Level 0, Foyer</i>
15:30 - 17:30	<b>MIP Talk, Town Hall, Awards &amp; Closing</b>	Jesús, Raula, Leonel, Craig	Room 260-040
18:30 - 22:00	<b>Joint Social Event with SCAM</b>		The Wharfside Function Centre

# Invited Talks



## VISSOFT Keynote



James Noble

Creative, Research, & Programming

 Sun, Oct 7 @ 09:00

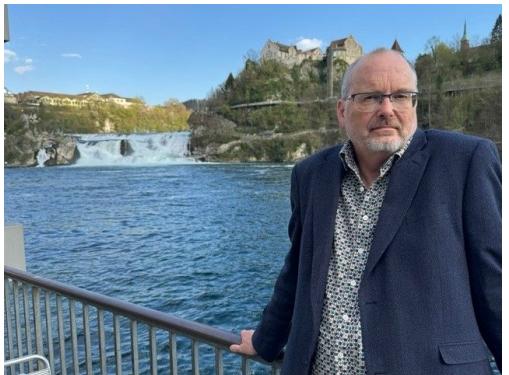
### ***Software, Abstraction, and Visualisation***

Abstraction is rather out of fashion in contemporary computer science. Why waste time and effort struggling to design interfaces, APIs, or domain models when vibe-coding firms are valued in the billions, when UML is more despised than COBOL, and when people have "had enough of experts" (carbon based experts, anyway)? Why try to visualise the design and operation of our computer systems, let alone formalise or attempt to understand them, when we can talk to our programs as easily as Adam & Eve could talk to the snake in the garden of Eden?

# Invited Talks



## VISSOFT Keynote



James Noble

Creative, Research, & Programming

Sun, Oct 7 @ 09:00

## SCAM/VISSOFT Keynote

shared with



## Visualizing Program State in the Pernosco Debugger



Rob O'Callahan

Google, NZ

Mon, Oct 8 @ 09:00

### *Software, Abstraction, and Visualisation*

Abstraction is rather out of fashion in contemporary computer science. Why waste time and effort struggling to design interfaces, APIs, or domain models when vibe-coding firms are valued in the billions, when UML is more despised than COBOL, and when people have "had enough of experts" (carbon based experts, anyway)? Why try to visualise the design and operation of our computer systems, let alone formalise or attempt to understand them, when we can talk to our programs as easily as Adam & Eve could talk to the snake in the garden of Eden?

"Omniscient" debuggers have efficient and complete access to all program states that occurred during some run(s) of the program. The question then is, what is the best way to visualize this data to enable users to debug their programs in the most effective, time-efficient and fun manner?

# Open Tool Demo + Posters + Challenge



13th IEEE Working Conference  
on Software Visualization



 Sun, Sep 7 @ 15:30 - 17:30

Room 260-040

!?

Informal session where everyone can demonstrate prototypes or already published tools

!?

Posters will also be exhibited

# Sunday Dinner

## Sun, 7 Sep



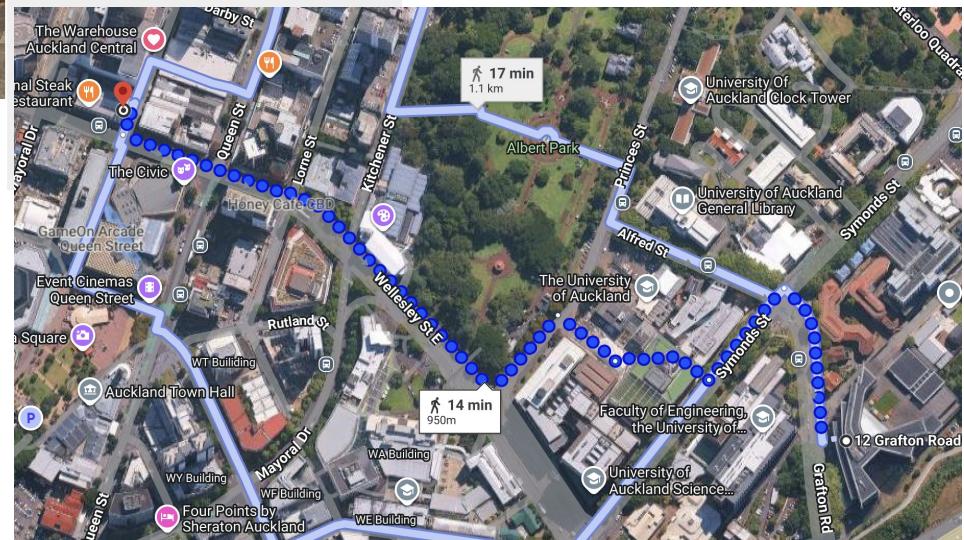
 Sun, Sep 7 @ 18:00 - 21:00

**Sunday Social Dinner @ Elliot Stables  
(optional)**

Informal casual dinner at a restaurant food court. 15 min walk from conf venue.

Please note that each participant has to cover the cost of their own food and drinks.

<https://www.elliottstables.co.nz/>



# Conference Banquet

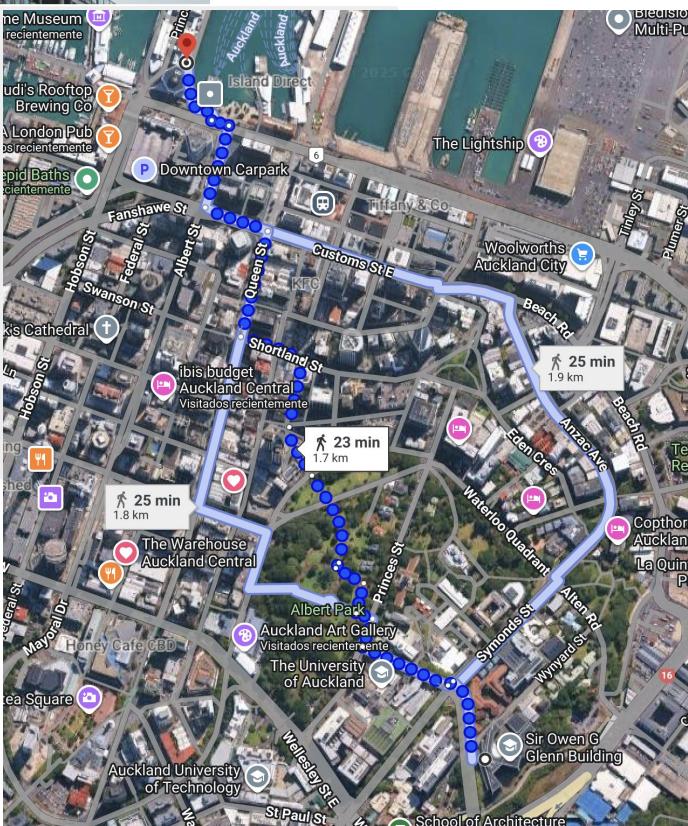
## Mon, 8 Sep



July 17 Mon, Sep 8 @ 18:30 - 22:00

Joint Social Event with SCAM @ The Wharfside Function Centre

Monday Conference Banquet with SCAM. 23 min walk from conf venue.



<https://nzvenues.co.nz/auckland-venue/wharfside-event-centre>

# Discord & Social



Join the discussion!

<https://discord.gg/bb8pTe2qYs>



Please use the hashtag **#VISSOFT2025** on X/Twitter  
and other social media

# Visit and Hike to Waiheke Island, Rangitoto Island, Hobbiton



Join the channel on  
discord: #social



# Things to do in Auckland



<https://www.wetaworkshop.com/tours/auckland>



Join the channel on  
discord: #social



<https://www.experienceallblacks.com/>

# Bonus track: VISSOFT papers visualization



<https://jgbarah.gitlab.io/vissoft>

<https://gitlab.com/jgbarah/vissoft/>

# Sponsors

We thank the following sponsors:

## Gold



Waipapa  
Taumata Rau  
University  
of Auckland



## Silver



TE KUNENGA | MASSEY  
KI PŪREHUROA UNIVERSITY  
UNIVERSITY OF NEW ZEALAND

## Supporter



## Technical Sponsor



Best Tool/Poster/Challenge Demonstration Award \*

- EVOSCAT: Exploring Software Change Dynamics in Large-Scale Historical Datasets
- Visualizing cloud-native applications with KubeDiagrams
- FlameGraph AR: Immersive Visualization of CPU Profiles in Augmented Reality
- Flexible Snapshot Creation in Debugging Sessions for Code Cities
- Visualization of the Linux Kernel With ExplorViz
- Visualizing The Linux Kernel Performance with FlameGraph AR
- Streamlining Analyses on the Linux Kernel with DUKS
- HeapKeep: Exploring Novel Codebases Through an RPG Interface
- Playable Code: Generating a Computer Game to Grasp the Complexity of Software
- Real-Time XR Visualizations of Code Metrics in the IDE
- Representing Linux Commits With A Heatmap Graph
- Debian Bug Resolution Visualization
- Visualizing Linux Kernel Contributor Networks In Java
- Interactive 3D Graph Visualization

## VISSOFT2025 - People's Choice Awards

To award our interactions during VISSOFT, we would like to announce two awards based on two categories:

- Best Presentation Award for Research and NIER Papers
- Best Tool/Poster/Challenge Demonstration Award for Tools, Posters and Challenges

## Best Presentation Award \*

- Sonifying and Visualizing the Heartbeat of Evolving Software Systems
- Trace-Based Bytecode Interpreter Visualization for Compiler Construction Education
- DebtQuest: Discover Technical Debt Management Issues with Survey Visualization
- Visualizing and Exploring Data Access in Microservices Using Interactive Treemaps
- Towards Visualizing Educational Block-Based Scratch Code with the City Metaphor
- Skylines: Visualizing Object-Oriented Software Systems Through Class Contours
- ChangePrism: Visualizing the Essence of Code Changes
- Semantic Zoom and Mini-Maps for Software Cities
- Visualizing Data Access Traces in Microservices Using Animated Heat Treemaps
- Towards Higher Motivation to Perform Software Comprehension Tasks Through Gamification
- Large Language Models as Visualization Agents for Immersive Binary Reverse Engineering
- HTML Structure Exploration in 3D Software Cities

## VISSOFT2025 - People's Choice Awards

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