8:30 Registration Desk Open — FG.G Foyer

9:00

W1 G.1.15 **4th International Workshop on Quantitative Approaches to Software Quality**

W2 G.3.33 **TDA 2016: First International Workshop on Technical Debt Analytics**

T2 R.G.12 **Weka Data Mining Tool**

R.G.12 = "Lab 5"

T4 FG.2.01 **SOUFFLÉ: Datalog Compiler for Static Program Analysis**

10:30 Break — FG.G Foyer

11:00

W1 G.1.15 **4th International Workshop on Quantitative Approaches to Software Quality**

W2 G.3.33 **TDA 2016: First International Workshop on Technical Debt Analytics**

T2 R.G.12 **Weka Data Mining Tool**

T4 FG.2.01 **SOUFFLÉ: Datalog Compiler for Static Program Analysis**

13:00 Lunch — FG.G Foyer

14:00

W1 G.1.15 **4th International Workshop on Quantitative Approaches to Software Quality**

W2 G.3.33 **TDA 2016: First International Workshop on Technical Debt Analytics**

T2 R.G.12 **Weka Data Mining Tool**

T5 FG.2.01 **Dynamic analysis of JavaScript with Jalangi**

T6 S.B.03 **Interaction Design for Specifying Requirements**

15:30 Break — FG.G Foyer

16:00

W1 G.1.15 **4th International Workshop on Quantitative Approaches to Software Quality**

W2 G.3.33 **TDA 2016: First International Workshop on Technical Debt Analytics**

T2 R.G.12 **Weka Data Mining Tool**

T5 FG.2.01 **Dynamic analysis of JavaScript with Jalangi**

T6 S.B.03 **Interaction Design for Specifying Requirements**

18:00 **Opening Reception** — APA Foyer

Registration Desk at *Gallagher Academy of Performing Arts* from 17:00

Sponsored by *IT Professionals NZ.* itp.nz

8:30 Registration Desk Open — S.1 Foyer

9:00 **Opening Address** — S.1.04

9:30 **1. Keynote: Manu Sridharan** *Samsung Research America* — S.1.04
Program Analysis for Real-World JavaScript
Sponsored by *AUT Software Engineering Laboratory*. serl.aut.ac.nz

10:30 Break — S.1 Foyer

11:00 **2. Poster Session** Chair: Alex Potanin — S.1.04

12:30 Lunch & Posters — S.1 Foyer
Sponsored by *Department of Computer Science and Software Engineering*, *University of Canterbury*. cosc.canterbury.ac.nz

14:00 **3A. Software Engineering Practice** S.1.04
Chair: Yanchun Sun

Find your Open Source License now!
Georgia Kapitsaki and Georgia Charalambous

Task Recommendation with Developer Social Network in Software Crowdsourcing
Ning Li, Wenkai Mo and Beijun Shen

What Influences Usability Defect Reporting? – A Survey of Software Development Practitioners
Nor Shahida Mohamad Yusop, John Grundy, Rajesh Vasa and Jean-Guy Schneider

3B. Automation S.1.02
Chair: Hidehiko Masuhara

EXPSOL: Recommending Online Threads for Exception-related Bugs Reports
Xiaoning Liu, Beijun Shen, Hao Zhong and Jiangang Zhu

Retrieving Design Pattern Usage Examples using Domain Matching
Shamsa Abid, Zohaa Qamar, Natasha Khan, Muhammad Shayan and Hamid Abdul Basit

LibSift: Automated Detection of Third-Party Libraries in Android Applications
Charlie Soh, Hee Beng Kuan Tan, Yauhen Arnatovich, Annamalai Narayanan and Lipo Wang

15:30 Break — S.1 Foyer

16:00 **4A. People** S.1.04
Chair: Amjed Tahir

Does the Role Matter? An Investigation of Casual Contributors' Code Quality in GitHub
Yao Lu, Xinjun Mao, Zude Li, Yang Zhang, Tao Wang and Gang Yin

Does the "Project Manager" still exist in Agile Software Development Projects?
Yogeshwar Shastri, Rashina Hoda and Robert Amor

Does It Fit Me Better? User Segmentation in Requirements Engineering
Mohammadhossein Sherkat, Tim Miller and Antonette Mendoza

4B. Models S.1.02
Chair: Thomas Kühne

A Model Checking Based Approach for Containment Checking of UML Sequence Diagrams
Faiz Ul Muram, Huy Tran and Uwe Zdun

Model-Based Continuous Verification
Lingling Fan, Sen Chen, Lihua Xu, Zongyuan Yang and Huibiao Zhu

Model Driven Software Security Architecture of Systems-of-Systems
Jamal El Hachem, Zi Yang Pang, Vanea Chiprianov, Ali Babar and Philippe Aniorte

19:00 **Steering Committee Meeting** — City Centre

8:30 Registration Desk Open — S.1 Foyer

9:30 **5. Keynote: Cristina Cifuentes** *Oracle Labs* — S.1.04
Oracle Parfait: The Flavour of Real-World Vulnerability Detection
Sponsored by *Department of Computer Science, University of Auckland*. cs.auckland.ac.nz

10:30 Break — S.1 Foyer

11:00 **6A. Security** — S.1.04
Chair: Ewan Tempero

Analytical Study of Cognitive Layered Approach for Understanding Security Requirements using Problem Domain Ontology
Bongjae Kim and Seok-Won Lee

An Empirical Analysis of Vulnerabilities in OpenSSL and the Linux Kernel
Matthieu Jimenez, Mike Papadakis and Yves Le Traon

Projected Control Graph for Accurate and Efficient Analysis of Safety and Security Vulnerabilities
Ahmed Tamrawi and Suresh Kothari

6B. Patterns — S.1.02
Chair: Thomas Kühne

Examination of Coding Violations Focusing on Their Change Patterns over Releases
Aji Ery Burhandenny, Hirohisa Aman and Minoru Kawahara

Splitting Commits via Past Code Changes
Hiroyuki Kirinuki, Yoshiki Higo, Keisuke Hotta and Shinji Kusumoto

An empirical study into the relationship between class features and test smells
Amjed Tahir, Steve Counsell and Stephen MacDonell

12:30 Lunch — S.1 Foyer

14:00 **7A. Empirical Software Engineering** — S.1.04
Chair: Stephen MacDonell

A Model for Defining Coupling Metrics*
Ewan Tempero and Paul Ralph

A Map of Threats to Validity of Systematic Literature Reviews in Software Engineering*
Xin Zhou, Yuqin Jin, He Zhang, Shanshan Li and Xin Huang

The Introduction of Technical Debt Tracking in Large Companies
Antonio Martini, Terese Besker and Jan Bosch

7B. Effort Estimation — S.1.02
Chair: Pornsiri Muenchaisri

Heterogeneous Cross-Company Effort Estimation through Transfer Learning
Shensi Tong, Qing He, Yuting Chen, Ye Yang and Beijun Shen

An Algorithmic-based Change Effort Estimation Model for Software Development
Sufyan Basri, Nazri Kama, Haslina Md Sarkan, Saiful Adli, Faizura Haneem

Filter-INC: Handling Effort-Inconsistency in Software Effort Estimation Datasets
Passakorn Phannachitta, Jacky Keung, Kwabena Bennin, Akito Monden and Kenichi Matsumoto

15:30 Break — S.1 Foyer

16:00 **8A. Mobile Application Development** — S.1.04
Chair: Jens Dietrich

Achieving High Code Coverage in Android UI Testing via Automated Widget Exercising
Yauhen Arnatovich, Minh Ngoc Ngo, Tan Hee Beng Kuan and Charlie Soh

Testing Android Apps via Guided Gesture Event Generation
Xiangyu Wu, Yanyan Jiang, Chang Xu, Chun Cao, Xiaoxing Ma and Jian Lu

Effectively Manifesting Concurrency Bugs in Android Apps
Qiwei Li, Yanyan Jiang, Tianxiao Gu, Chang Xu, Jun Ma, Xiaoxing Ma and Jian Lu

8B. Software Engineering for Cyber-Physical Systems — S.1.02
Chair: Takashi Kobayashi

Model-based API-call constraint checking for automotive control software*
Dongwoo Kim, Yoohee Chung and Yunja Choi

An Incremental V-Model Process for Automotive Development
Bohan Liu, He Zhang and Saichun Zhu

Minimalist Qualitative Models for Model Checking Cyber-physical Feature Coordination
Michael Rathmair, Christoph Luckeneder and Hermann Kaindl

Doctoral Consortium G.1.15

* ***Best Paper Awards***

8:30 Registration Desk Open — S.1 Foyer

9:30 **9. Keynote: Paul Ash** *National Cyber Policy Office, New Zealand Government* — S.1.04
New Zealand in an interconnected world: delivering a secure, resilient and prosperous online environment
Sponsored by *Department of Computer Science and Software Engineering, University of Canterbury.* cosc.canterbury.ac.nz

10:30 Break — S.1 Foyer

11:00 **10A. Auto-repair** — S.1.04
Chair: Amjed Tahir

Toward Developer-like Automated Program Repair - Modification Comparisons between GenProg and Developers
Hiroki Nakajima, Yoshiki Higo, Haruki Yokoyama and Shinji Kusumoto

CURE: Automated Patch Generation for Dynamic Software Update
Zelin Zhao, Tianxiao Gu, Xiaoxing Ma, Chang Xu and Jian Lü

Improving Reliability of Dynamic Software Updating Using Runtime Recovery
Tianxiao Gu, Zelin Zhao, Xiaoxing Ma, Chang Xu, Chun Cao and Jian Lü

10B. Symbolic Execution — S.1.02
Chair: Alex Potanin

The Floating-point Extension of Symbolic Execution Engine for Bug Detection
Xingming Wu, Zhenbo Xu, Dong Yan, Tianyong Wu, Jun Yan and Jian Zhang

Compositional Symbolic Execution: Incremental Solving Revisited
Yude Lin, Tim Miller and Harald Sondergaard

Masking Soft Errors with Static Bitwise Analysis
Jianjun Xu, Xiankai Meng, Qingping Tan, Jingling Xue

12:30 Lunch — S.1 Foyer

14:00 **11A. Machine Learning Techniques in Software Engineering** — S.1.04
Chair: Stephen MacDonell

Integrating Goal Model into Rule-based Adaptation
Tianqi Zhao, Tao Zan, Haiyan Zhao, Zhenjiang Hu and Zhi Jin

Dataset Coverage for Testing Machine Learning Computer Programs
Shin Nakajima and Hai Ngoc Bui

Automated Test Sequence Generation for Function Block Diagram Programs
Jiyoung Song, Eunkyoung Jee and Doo-Hwan Bae

11B. Formal Methods — S.1.02
Chair: Steve Reeves

Mind the Gap: Addressing Behavioural Inconsistencies with Formal Methods
Juliana Küster Filipe Bowles and Marco B. Caminati

Formalization and Verification of the Powerlink Protocol using CSP
Haiping Pang, Ju Li, Yijia Ruan, Yanhong Huang, Jianqi Shi and Shengchao Qin

Automated Deployment of Data Collection Policies over Heterogeneous Shared Sensing Infrastructures
Cyril Cecchinel, Sebastien Mosser and Philippe Collet

15:30 **Closing Address & Best Paper Awards** — S.1.04
Best Paper Awards sponsored by *Massey University.* massey.ac.nz

16:00 Break — S.1 Foyer

Conference Banquet

17:00	Bus from campus to Hobbiton Movie Set (departs from central campus bus stop)
	Tour of Hobbiton & Banquet
22:45-23:00	Arrive back at campus and then to city centre (Novotel Hotel)

Sponsored by *Rezare Systems.* rezare.co.nz

Venues

S.1.04		Keynotes, paper sessions, poster session, opening and closing sessions
S.1.02		Paper sessions
S.1 Foyer	Foyer of the upper floor of S Block	Posters, Breaks, Registration Desk (Wed-Fri), Lunch (Wed-Fri)
G.1.15		Doctoral Consortium & Workshop 1
APA Foyer	*Gallagher Academy of Performing Arts*	Opening Reception, Registration Desk from 17:00 on Tuesday
FG.G Foyer	Ground floor of the FG Link building (between F Block and G Block)	Registration Desk from 8:30 to 17:00 on Tuesday Breaks and Lunch for Workshop & Tutorial Attendees on Tuesday
FG.2.01		Tutorials 4 & 5
S.B.03	Room in the basement of S Block (access via stairs from S.G. Foyer)	Tutorial 6
G.3.33		Workshop 2
R.G.12	Computer laboratory in R Block: “Lab 5”.	Tutorial 2

Room Numbering	*Building.Level.Room*	G.3.33 → G Block Level 3 Room 33