TABLE OF CONTENTS

MESSAGE FROM THE CHAIRS

TECHNICAL RESEARCH 1: CODE QUALITY
Monday, May 16 11:00 - 12:30 pm

A Textual-based Technique for Smell Detection
Fabio Palomba, Annibale Panichella, Andrea De Lucia, Rocco Oliveto, and Andy Zaidman

Context-Based Code Smells Prioritization for Prefactoring
Natthawut Sae-Lim, Shinpei Hayashi, and Motoshi Saeki

Do Code Smells Hamper Novice Programming? A Controlled Experiment on Scratch Programs
Felienne Hermans and Efthimia Aivaloglou

Improving Code Readability Models with Textual Features
Simone Scalabrino, Mario Linares-Vásquez, Denys Poshyvanyk, and Rocco Oliveto

TECHNICAL RESEARCH 2: PROGRAM COMPREHENSION
Monday, May 16 2:00 - 3:30 pm

Multistaging to Understand: Distilling the Essence of Java Code Examples
Huascar Sanchez, Jim Whitehead, and Martin Schaef

Navigating the WordPress Plugin Landscape
Mark Hills

A Case Study of Program Comprehension Effort and Technical Debt Estimations
Vallary Singh, Lori Pollock, Will Snipes, and Nicholas A. Kraft

On Method Ordering
Yorai Geffen and Shahar Maoz
TECHNICAL RESEARCH 3: SUPPORTING SOFTWARE DEVELOPERS
Monday, May 16 4:00 - 5:30 pm

**Identifying Modularization Patterns by Visual Comparison of Multiple Hierarchies**
Fabian Beck, Jan Melcher, and Daniel Weiskopf

**Glyph-Based Software Component Identification**
Ignacio Fernandez, Alexandre Bergel, Juan Pablo Sandoval Alcocer, Alejandro José Infante Rica, and Tudor Girba

**Taming the IDE with Fine-grained Interaction Data**
Roberto Minelli, Andrea Mocci, Romain Robbes, and Michele Lanza

**Learning to Rank for Bug Report Assignee Recommendation**
Yuan Tian, Dinusha Wijedasa, David Lo, and Claire Le Goues

TECHNICAL RESEARCH 4: LANGUAGE USAGE
Tuesday, May 17 2:00 - 3:30 pm

**Can We Find Stable Alternatives for Unstable Eclipse Interfaces?**
Simon Kawuma, John Businge, and Engineer Bainomugisha

**A Cooperative Approach for Combining Client-based and Library-based API Usage Pattern Mining**
Mohamed Aymen Saied and Houari Sahraoui

**A Novel Approach for Estimating Truck Factors**
Guilherme Avelino, Leonardo Passos, Andre Hora, and Marco Tulio Valente

**Can We Enforce a Benefit for Dynamically Typed Languages in Comparison to Staticaly Typed Ones? A Controlled Experiment**
Sebastian Okon and Stefan Hanenberg

TECHNICAL RESEARCH 5: ASSESSING CODE
Tuesday, May 17 4:00 - 5:30 pm

**Identifying Functionally Similar Code in Complex Codebases**
Fang-Hsiang Su, Jonathan Bell, Gail Kaiser, and Simha Sethumadhavan

**On Automatically Detecting Similar Android Apps**
Mario Linares-Vasquez, Andrew Holtzhauer, and Denys Poshyvanyk

**Rule-Directed Code Clone Synchronization**
Xiao Cheng, Hao Zhong, Yuting Chen, Zhenjiang Hu, and Jianjun Zhao

**Are Unreachable Methods Harmful? Results from a Controlled Experiment**
Simone Romano, Christopher Vendome, Giuseppe Scanniello, and Denys Poshyvanyk

SHORT PAPERS 1: GETTING DEEP INSIGHT INTO YOUR SOFTWARE
Tuesday, May 17 11:00 - 12:30 pm

**Investigating the Android Apps’ Success: An Empirical Study**
Latifa Guerrouj and Olga Baysal

**Retrofitting Automatic Testing through Library Tests Reusing**
Lei Ma, Cheng Zhang, Bing Yu, and Jianjun Zhao

**Measuring Energy Footprint of Software Features**
Syed Islam, Adel Noureddine and Rabih Bashroush

**Human-Machine Resolution of Invisible Control Flow**
Suraj Kothari, Ahmed Tamrawi, and Jon Mathews

**Extracting Configuration Parameter Interactions using Static Analysis**
Chelsea Metcalf, Farhaan Fowze, Tuba Yavuz, and Jose Fortes

**Android Build Dependency Analysis**
Bo Zhang, Vasil Tenev, and Martin Becker
SHORT PAPERS 2: COMPREHENSION YOU CAN USE
Tuesday, May 17 2:00 - 3:30 pm

Software Development and Tool Usability
Brian Dillon and Richard Thompson

Detecting Exploratory Programming Behaviors for Introductory Programming Exercises
Erina Makihara, Hiroshi Igaki, Norihiro Yoshida, Kenji Fujiwara, and Hajimu Iida

Embedding Programming Context into Source Code
Alexander Breckel and Matthias Tichy

Synchronized Static and Dynamic Visualization in a Web-Based Programming Environment
Jeong Yang, Young Lee, and David Hicks

Case Studies of Optimized Sequence Diagram for Program Comprehension
Madhusudan Srinivasan, Jeong Yang, and Young Lee

Comprehending Source Code of Large Software System for Reuse
Aniket Kulkarni

SHORT PAPERS 3: ATTACK OF THE DEVELOPMENT TEAM
Tuesday, May 17 4:00 - 5:30 pm

Defending Against the Attack of the Micro-clones
Rijnard van Tonder and Claire Le Goues

Towards Quality Gates in Continuous Delivery and Deployment
Gerald Schermann, Jürgen Cito, Philipp Leitner, and Harald Gall

Revisiting the Relationship Between Code Smells and Refactoring
Norihiro Yoshida, Tsubasa Saika, Eunjong Choi, Ali Ouni, and Katsuro Inoue

Generating Clone References with Less Human Subjectivity
Yusuke Yuki, Yoshiki Higo, Keisuke Hotta, and Shinji Kusumoto

Understanding Interactive Debugging with Swarm Debug Infrastructure
Fabio Petrillo, Zéphyrin Soh, Foutse Khomh, Marcelo Pimenta, Carla Freitas, and Yann-Gaël Guéhéneuc

TOOL DEMONSTRATIONS
Tuesday, May 17 11:00 - 12:30 pm

FeedBaG: An Interaction Tracker for Visual Studio
Sven Amann, Sebastian Proksch and Sarah Nadi

InfectoMeter: A Tool that Helps to Place Bug Fixes
Mohammad Azadmanesh and Matthias Hauswirth

Inline: Now You’re Coding with Portals
Alexander Breckel and Matthias Tichy

WAVI: A Reverse Engineering Tool for Web Applications
Jonathan Cloutier, Sègla Kpodjedo and Ghizlane El Boussaidi

PORBS: A Parallel Observation-based Slicer
Syed Islam and Dave Binkley

STAC: A Tool for Static Textual Analysis of Code
Saket Khatiwada, Michael Kelly and Anas Mahmoud

Hey! Are You Injecting Side Effect?: A Tool for Detecting Purity Changes in Java Methods
Naoto Ogura, Jiachen Yang, Keisuke Hotta, Yoshiki Higo and Shinji Kusumoto

WB4SP: A Tool to Build the Word Base for Specific Programs
Weisong Sun, Xiaobing Sun, Hui Yang and Bin Li