



# 1st Workshop on Assessment of Contemporary Modularization Techniques

- Workshop Program -

## 9:00 - 9:20 - Introduction

### Session I - Innovative Metrics for Module Dependencies

**Chair: Robert Walker, University of Calgary – Canada**

9:20 - 9:35 - Towards Assessing Modularity

*Hayden Melton, Ewan Tempero (University of Auckland - New Zealand)*

*Discussant: Jianjun Zhao (Shanghai Jiao Tong University, China)*

9:35 - 9:55 - Semantic Dependencies and Modularity of Aspect-Oriented Software

*Alberto Costa Neto, Márcio Ribeiro, Marcos Dósea, Rodrigo Bonifácio, Paulo Borba, Sérgio Soares (Federal University of Pernambuco, Pernambuco State University - Brazil)*

*Discussant: Hayden Melton (University of Auckland - New Zealand)*

9:55 - 10:10 - Indirect Coupling as a Criteria for Modularity

*Hong Yul Yang, Ewan Tempero (The University of Auckland - New Zealand)*

*Discussant: Chris Lüer (Ball State University - USA)*

10:10 - 10:30 - Identifying, Assigning, and Quantifying Crosscutting Concerns

*Marc Eaddy, Alfred Aho, Gail C. Murphy (Columbia University - USA, University of British Columbia - Canada)*

*Discussant: Robert J. Walker (University of Calgary - Canada)*

10:30 - 11:00 - Coffee Break

### Session II - Modularity Assessment for Evolvability and Reusability

**Chair: George Heineman, Worcester Polytechnic Institute – USA**

11:00 - 11:20 - Modularization with Externalization of Control Flow

*Urjaswala Vora (CDAC, Mumbai and IIT - India)*

*Discussant: Scott Hendrickson (University of California at Irvine – USA)*

11:20 - 11:40 - An Evolution Model for Software Modularity Assessment

*Yuanfang Cai, Sunny Huynh (Drexel University - USA)*

*Discussant: Alberto Costa Neto (Federal University of Pernambuco – Brazil)*

11:40 - 11:55 - Assessing Module Reusability

*Chris Lüer (Ball State University - USA)*

*Discussant: Marc Eaddy (Columbia University - USA)*

### Session III - Challenges on Experimental Design

**Chair: Phil Greenwood, Lancaster University – UK**

11:55 - 12:15 - On the Necessity of Empirical Studies in the Assessment of Modularization Mechanisms for Crosscutting Concerns

*Sven Apel, Christian Kaestner, Salvador Trujillo*

*(University of Magdeburg - Germany, University of the Basque Country - Spain)*

*Discussant: Phil Greenwood (Lancaster University - UK)*

12:15 - 12:30 - Using Design Structure Matrices to Assess Modularity in Aspect-Oriented Software Product Lines

*Pedro Matos, Rafael Duarte, Ivan Cardim, Paulo Borba (Universidade Federal de Pernambuco - Brazil)*

*Discussant: Yuanfang Cai (Drexel University - USA)*

12:30 - 14:00 - Lunch

### **Session III - Challenges on Experimental Design (cont.)**

14:00 - 14:15 - Performing and Reviewing Assessments of Contemporary Modularization Approaches:

What Constitutes Reasonable Expectations?

*Robert J. Walker (University of Calgary - Canada)*

*Discussant:* Thomas D. LaToza (Carnegie Mellon University – USA)

14:15 - 14:30 - Using Program Families for Maintenance Experiments

*Scott D. Fleming, R. E. Kurt Stirewalt, Laura K. Dillon (Michigan State University - USA)*

*Discussant:* Salvador Trujillo (University of the Basque Country – Spain)

14:30 - 15:30 - Discussion Groups

15:30 - 16:00 - Coffee Break

16:00 - 17:00 - Discussion Groups (continuation)

17:00 - 17:45 - Group Presentations and Wrap up