



## NSF Variability Expeditions Review and Joint Workshop with DFG SPP 1500

UCI - Center for Embedded Computer Systems

November 21-23, 2013.

# AGENDA

*Location: UC Irvine*

### **Thursday Nov 21, 2013**

7:30pm - 9:30pm     Get together, Dinner

### **Friday Nov 22, 2013**

8:00am - 9:00am:     Breakfast

9:00am - 9:30am:     “Review of Expeditions Interactions”, **Rajesh Gupta**, UCSD

#### Session 1: Coping with Variability

9:30am - 9:50am:     “Variability-Aware OpenMP”, **Abbas Rahimi**, UCSD

9:50am - 10:10am:    “Gallager B LDPC Decoder with Transient and Permanent Errors”, **Sean Huang**, UCLA

10:10am - 10:30am:   “Low Power, Low Storage Overhead Chipkill Correct via Multi-ECC”, **Xun Jian**, Illinois

10:30am - 10:40am:    Break

#### Session 2: Sensing, Characterization, and Emulation

10:40am - 11:00am:    “VarEMU: An Emulation Testbed for Variability”, **Lucas Wanner**, UCLA

11:00am - 11:20am:    “Slackprobe: Low Overhead In-Situ Performance Monitoring”, **Liangzhen Lai**, UCLA

11:20am - 11:40pm:    “Quantitative Evaluation of Soft Error Injection Techniques”, **Subhasish Mitra**, Stanford

11:40am - 12:00pm:    Poster session introduction

12:00pm - 1:30 pm:    Poster session and Lunch

1:30pm - 2:30pm:     Invited Speaker: **Tanay Karnik**, Intel

#### Session 3: Discussion on Platforms and Highlights of Recent and Ongoing Efforts

2:30pm - 3:00pm:     Ferrari Board: results and discussion led by **Liangzhen Lai** and **Puneet Gupta**, UCLA

3:00pm - 3:30pm:     LEON3 Platform: discussion led by **Steve Swanson**, UCSD

3:30pm - 3:45pm:     ARGO: Aging-aware GPGPU Register File Allocation”, **Majid Shoushtari**, UCI

3:45pm - 4:00pm:     Fault-tolerant caches, **Mark Gottscho**, UCLA

4:00pm - 5:00pm:     Open Questions & Post-Expedition Ideas: discussion led by **Rajesh Gupta**



## NSF Variability Expeditions Review and Joint Workshop with DFG SPP 1500

UCI - Center for Embedded Computer Systems

November 21-23, 2013.

### Saturday Nov 23, 2013

8:00am - 9:00am: Breakfast

#### Session 1

9:00am - 9:35am: "Overview of SPP1500", **Joerg Henkel**, KIT

9:35am - 10:10am: "Hardware Resilience", **Mehdi Tahoori**, KIT  
Representing projects: Ambrosia, PERICES, LIFT, OTERA

10:10am - 10:30am: Break + Poster Discussions

#### Session 2

10:30am - 11:05am: "OS and Application Reliability" **Peter Marwedel**, TU Dortmund  
Representing projects: FEHLER, Astroid, DanceOS

11:05am - 11:40am: "Reliable Systems and Platforms", **Norbert Wehn**, TU Kaiserslautern  
Representing projects: Get-SURE, MIMODES, ARES, VirTherm-3D

11:40am - 1:00 pm: Poster session and Lunch

#### Session 3: Collaboration opportunities

1:00pm - 2:30pm: Breakout Session I

2:30pm - 3:00pm: Coffee Break and open discussions

3:00pm - 4:15pm: Breakout Session II

4:15pm - 4:30pm: Short Break

4:30pm - 5:30pm: Summary Session