Welcome to the Brett Daniel Software Engineering Seminar (cs591se), named in the loving memory of Brett Daniel

Organized by Tao Xie and Darko Marinov since Fall 2013. Before Fall 2013, the seminar was co-organized by Danny Dig (from Spring 2011 to Spring 2013), Ralph Johnson (from inception to Spring 2011), and Darko Marinov (from inception to Fall 2012).

For seminar announcements, please subscribe to the soft-eng mailing list.

To access papers for the seminar, one could use the library proxy bookmarklet or proxy server to get free access.

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**Fall 2018**

For the Fall 2018 semester, the SE seminars are co-organized by Wenyu Wang.

We meet at **3124 SC**, from **2:30pm to 4pm**, on each **Wednesday**.

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<td>08/29</td>
<td>Wenyu Wang</td>
<td>Organizational Meeting&lt;br&gt;Practice talk for the ASE 2018 paper&lt;br&gt;<strong>An Empirical Study of Android Test Generation Tools in Industrial Cases</strong>&lt;br&gt;by Wenyu Wang, Dengfeng Li, Wei Yang, Yurui Cao, Zhenwen Zhang, Yuetang Deng, Tao Xie</td>
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<tr>
<td>09/05</td>
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<td>09/12</td>
<td>Xueqing Liu</td>
<td>Practice talk for the VL/HCC 2018 paper&lt;br&gt;<strong>A Large-Scale Empirical Study on Android Runtime Permission Rationale Messages</strong>&lt;br&gt;by Xueqing Liu, Yue Leng, Wei Yang, Wenyu Wang, Chengxiang Zhai, Tao Xie</td>
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<td>09/19</td>
<td>Karl Palmskog (UT Austin)</td>
<td>A Machine-Checked Formalization of Change Impact Analysis</td>
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<td>Zixin Huang</td>
<td>Practice talk for the ATVA 2018 paper&lt;br&gt;<strong>PSense: Automatic Sensitivity Analysis for Probabilistic Programs</strong>&lt;br&gt;by Zixin Huang, Zhenbang Wang, Sasa Misailovic</td>
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<td>10/03</td>
<td>Yuanfang Cai (Drexel University)</td>
<td>Software Architecture Analysis: Theory and Practice</td>
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<td>Saikat Dutta</td>
<td>Practice talk for the FSE 2018 paper&lt;br&gt;<strong>Testing Probabilistic Programming Systems</strong>&lt;br&gt;by Saikat Dutta, Owolabi Legunsen, Zixin Huang, Sasa Misailovic</td>
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<td>10/24</td>
<td>Umang Mathur</td>
<td>Practice talk for the FSE 2018 paper</td>
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<td><em>Data Race Detection on Compressed Traces</em> by Dileep Kini, Umang Mathur, Mahesh Viswanathan</td>
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<td>Linyi Li</td>
<td><em>DeepGauge: Multi-Granularity Testing Criteria for Deep Learning Systems</em> by Lei Ma, Felix Juefei-Xu, Fuyuan Zhang, Jiyuan Sun, Minhui Xue, Bo Li, Chunyang Chen, Ting Su, Li Li, Yang Liu, Jianjun Zhao, Yadong Wang</td>
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**Spring 2018**

This semester the seminar is co-organized by Saikat Dutta and Keyur Joshi.

Spring 2018 meetings: **4124 SC, 3:30pm-4:30pm** on Thursdays.

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<td>01/25</td>
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<td>Machine Translation Testing</td>
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<td>Farah Hariri</td>
<td><em>Are Mutants a Valid Substitute for Real Faults in Software Testing?</em> by René Just, Darioush Jalali, Laura Inozemtseva, Michael D. Ernst, Reid Holmes, and Gordon Fraser (FSE 2014)</td>
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<td>02/08</td>
<td>Wei Yang</td>
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<td><em>EnerJ: Approximate Data Types for Safe and General Low-Power Computation</em> by Adrian Sampson, Werner Dietl, Emily Fortuna, Danushen Gnanapragasam, Luis Ceze, and Dan Grossman (PLDI 2011)</td>
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<td>02/22</td>
<td>Xiaohong Chen</td>
<td>Cameing to Terms with Quantified Reasoning by Laura Kovacs, Simon Robillard, and Andrei Voronkov (POPL 2017)</td>
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<td>03/01</td>
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<td><em>One test to rule them all</em> by Alex Groce, Josie Holmes, and Kevin Kellar (ISSTA 2017)</td>
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<td>Date</td>
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<td>03/15</td>
<td>Rami Bahsoon</td>
<td>Economics-Driven Architecting by Ivan Mistrik, Rami Bahsoon, Rick Kazman, Yuanyuan Zhang (Book)</td>
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<td>03/22</td>
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<td>03/29</td>
<td>Sara Achour</td>
<td>Time Dilation and Contraction for Programmable Analog Devices with Jaunt by Sara Achour, Martin Rinard</td>
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<td>04/05</td>
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<td>04/12</td>
<td>All</td>
<td>Research Discussion Contd.</td>
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<td>Saikat Dutta</td>
<td>DeepXplore: Automated Whitebox Testing of Deep Learning Systems by Kexin Pei, Yinzhi Cao, Junfeng Yang and Suman Jana</td>
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<td>05/03</td>
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<td></td>
<td></td>
<td>Title: A Characteristic Study of Parameterized Unit Tests in .NET Open Source Projects</td>
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**Fall 2017**

This semester the seminar is co-organized by Zhengkai Wu.

Fall 2017 meetings: **4405 SC, 12:30 pm - 1:30 pm** on Wednesdays.

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<td>Zhengkai Wu</td>
<td>How to Read an Engineering Research Paper by William G. Griswold</td>
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<td>Writing Good Software Engineering Research Papers by Mary Shaw (ICSE 2003)</td>
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<td>09/06</td>
<td>Eva Kühn</td>
<td>Modeling, Verifying and Re-Using Coordination Generics in Collaborative Systems with the Peer Model</td>
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<td>09/13</td>
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<td>09/20</td>
<td>Wei Yang</td>
<td>Malware Detection in Adversarial Setting: Exploiting Feature Evolutions and Confusions in Android Apps by Wei Yang, Deguang Kong, Tao Xie and Carl A. Gunter (ACSAC 2017)</td>
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<td>09/27</td>
<td>August Shi</td>
<td>QTEP: Quality-Aware Test Case Prioritization by Song Wang, Jaechang Nam, and Lin Tan (ESEC/FSE 2017)</td>
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<td>Date</td>
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<td>10/04</td>
<td>Wing Lam</td>
<td>Balancing soundness and efficiency for practical testing of configurable systems by Sabrina Soulo, Marcelo d’Amorim, and Rohit Gheyi (ICSE 2017)</td>
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<td>Quals Practice</td>
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<td>10/11</td>
<td>Farah Hariri</td>
<td>ICST Writer’s Workshop</td>
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<td>10/18</td>
<td>Karl Palmskog</td>
<td>iCoq: Regression Proof Selection for Large-Scale Verification Projects by Ahmet Celik, Karl Palmskog, and Milos Gligoric (ASE 2017)</td>
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<td>Practice talk for ASE</td>
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<td>10/25</td>
<td>Keyur Joshi</td>
<td>Triangular inequality for compiler-based strength reduction by Yufei Ding, Lin Ning, Hui Guan, and Xipeng Shen (PLDI 2017)</td>
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<td>11/01</td>
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<td>Zhengkai Wu</td>
<td>Statically Checking Web API Requests in JavaScript</td>
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<td>Qiuhua Ding</td>
<td>by Erik Wittern, Annie T. T. Ying, Yunhui Zheng, Julian Dolby, and Jim A. Laredo (ICS E 2017)</td>
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<td>11/29</td>
<td>Saikat Dutta</td>
<td>Skeletal program enumeration for rigorous compiler testing by Qirun Zhang, Chengnian Sun, and Zhendong Su (PLDI 2017)</td>
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<td>Qiuhua Ding</td>
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<td>12/06</td>
<td>Milica Hadzi-Tanovic</td>
<td>Learning to prioritize test programs for compiler testing by Junjie Chen, Yanwei Bai, Dan Hao, Yingfei Xiong, Hongyu Zhang, and Bing Xie (ICSE 2017)</td>
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**Spring 2017**

This semester the seminar is co-organized by Angello Astorga and Wei Yang.

Spring 2017 meetings: **4124 SC, 12:00 pm - 1:00 pm** on Wednesdays.

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<td>Date</td>
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<td>01/25</td>
<td>Author: Angello</td>
<td>Zhengkai</td>
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<tr>
<td>02/01</td>
<td>Author: Suleman</td>
<td>Chiao</td>
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| 02/08  | Author: Vimuth               |                          | "STABILIZER: Statistically Sound Performance Evaluation"             | Charlie Curtsinger and Emery D. Berger
| 02/15  | Wei Yang                     |                          | "EnMobile: Entity-based Characterization and Analysis of Mobile Malware" | Wei Yang, Mukul Prasad, Tao Xie            |
| 02/22  | Wing Lam                     |                          | "Commutativity analysis: A new analysis framework for parallelizing compilers." | Rinard, Martin C., and Pedro C. Diniz.
| 03/01  | Chiao                        |                          | Practice qual                                                        | "MultiSE: Multi-Path Symbolic Execution using Value Summaries" |
|        |                              |                          | Koushik Sen, George Necula, Liang Gong and Philip Wontae Choi        |                                            |
| 03/08  | Alex Gyori & Company Visit   |                          | Efficient Incrementalized Runtime Checking of Linear Measures on Lists | Alex Gyori, Pranav Garg, Edgar Pek, P. Madhusudan (ICST 2017) |
| 03/22  | Spring Break                 |                          |                                                                      |                                            |
| 03/29  | Darko Marinov                |                          | ICST 2017: Overview of conference talks                               |                                            |
| 04/05  | Author: Milica               | Suleman                  | DroidRA: Taming Reflection to Support Whole-Program Analysis of Android Apps | Li Li, Tegawendé F. Bissyandé, Damien Octeau, Jacques Klein (ISSTA 2016) |
| 04/12  | Author: Zhengkai             |                          | Guiding Dynamic Symbolic Execution toward Unverified Program Executions | Maria Christakis Peter Müller Valentin Wüstholz (ICSE 2016) |
| 04/19  |                              |                          | student research talks                                              |                                            |
| 04/26  | Haotian Jiang                |                          | A Survey on Truth Discovery                                          |                                            |
| 05/03  | August Shi                   |                          | Optimizing Test Placement for Module-Level Regression Testing        | ICSE '17 practice talk                    |
## Fall 2016

This semester the seminar is co-organized by August Shi and Ping (Siwakorn) Srisakaokul.

Fall 2016 meetings: 4124 SC, 2:00 pm - 3:00 pm on Wednesdays.

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<td>Tao Xie</td>
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<td>Owolabi Legunsen</td>
<td>Mohammad Amin Alipour, August Shi, Rahul Gopinath, Darko Marinov, and Alex Groce (ASE 2016)</td>
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<td>How Good Are the Specs? A Study of the Bug-Finding Effectiveness of Existing Java API Specifications</td>
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<td>Owolabi Legunsen, Wajih Ul Hassan, Xinyue Xu, Grigore Rosu, and Darko Marinov (ASE 2016)</td>
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<td>09/14</td>
<td>Wei Yang</td>
<td>Detecting and Exploiting Second Order Denial-of-Service Vulnerabilities in Web Applications</td>
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<td>Olivo Oswaldo, Isil Dillig, and Calvin Lin (CC S 2015)</td>
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<td>09/21</td>
<td>Sasa Misailovic</td>
<td>PSI: Exact Symbolic Inference for Probabilistic Programs</td>
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<td>Timon Gehr, Sasa Misailovic, and Martin Vechev (CAV 2016)</td>
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<td>09/28</td>
<td>Cosmin Radoi</td>
<td>Inferring Program Transformations From Examples via Pattern Generalization</td>
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<td>Zhengkai Wu</td>
<td>Testing and validating machine learning classifiers by metamorphic testing</td>
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<td>Xiaoyuan Xie, Joshua W.K. Ho, Christian Murphy, Gail Kaiser, Baowen Xu, and Tsong Yueh Chen</td>
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<td>10/12</td>
<td>Muhammad Suleman Mahmood</td>
<td>Micro Execution</td>
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<td>Patrice Godefroid (ICSE 2014)</td>
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<td>10/19</td>
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<td>Evaluating the Effects of Compiler Optimizations on Mutation Testing at the Compiler IR Level</td>
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<td>Farah Hariri, August Shi, Hayes Converse, Sarfraz Khurshid, and Darko Marinov (ISSRE 2016)</td>
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<td>10/26</td>
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<td>Automatic Error Elimination by Horizontal Code Transfer Across Multiple Applications</td>
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<td>Stelios Sidiroglou-Douskos, Eric Lahtinen, Fan Long, and Martin Rinard (PLDI 2015)</td>
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<td>11/02</td>
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<td>An Extensive Study of Static Regression Test Selection in Modern Software Evolution</td>
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<td>11/09</td>
<td>Dengfeng (Davis) Li</td>
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|        | Alex Gyori              | Automated Test Input Generation for Android: Are We Really There Yet in an Industrial Case?  
Xia Zeng, Dengfeng Li, Wujie Zheng, Fan Xia, Yuetang Deng, Wing Lam, Wei Yang, and Tao Xie (FSE Industry Track 2016) |
|        |                        | FSE-Demo Practice Talk                                               |
|        |                        | NonDex: A tool for detecting and debugging wrong assumptions on Java API specifications  
Alex Gyori, Ben Lambeth, August Shi, Owolabi Legunsen, and Darko Marinov (FSE Demo Track 2016) |
| 11/16  | Milica Hadzi-Tanovic    | How Does Regression Test Prioritization Perform in Real-World Software Evolution?  
Yafeng Lu, Yiling Lou, Shiyan Cheng, Lingming Zhang, Dan Hao, Yangfan Zhou, and Lu Zhang (ICSE 2016) |
| 11/30  | Earlene Fernandes       | Securing IoT Platforms through Systematic Analysis and Design         |

**Spring 2016**

This semester the seminar is co-organized by Wing Lam and Alex Gyori. You shall suggest paper candidates to read for the seminar from the list of major software engineering/programming languages/verification conferences as listed here. Please volunteer for papers on this Google sheet.

Spring 2016 meetings: 4124 SC, 4:00 pm - 5:00 pm on Mondays.

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<td>Tao Xie</td>
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<td>Mary Shaw (ICSE 2003)</td>
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<td>02/01</td>
<td>Wajih Ul Hassan</td>
<td>Memoized Symbolic Execution</td>
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<td></td>
<td></td>
<td>by Guowei Yang, Corina S. Pseanu, and Sarfraz Khursheid (ISSTA 2012)</td>
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<td>02/08</td>
<td>Ore Alebiosu</td>
<td>MultiSE: Multi-Path Symbolic Execution using Value Summaries</td>
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<td>by Koushik Sen, George Necula, Liang Gong, and Wonltae Choi (FSE 2015)</td>
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<td>02/15</td>
<td>Andrei Stefanescu</td>
<td>Toward language-independent program verification Practice Job Talk</td>
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<td>02/22</td>
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<td>Static Check API Protocol Conformance with Mined Multi-Object Specifications</td>
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<td>02/29</td>
<td>Ali Kheradmand</td>
<td>Enforceable Security Policies</td>
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<td>by Fred B. Schneider (ACM Transactions on Information and System Security 2000)</td>
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<td>04/11</td>
<td>Chiao Hsieh</td>
<td>Reusing Constraint Proofs in Program Analysis by Andrea Aquino, Francesca Bianchi, Meixian Chen, Giovanni Denaro and Mauro Pezzè (ISSSTA 2015)</td>
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<td>04/25</td>
<td>John Micco (Google)</td>
<td>Scheduling Tests for Continuous Integration at Google Scale</td>
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<td>05/02</td>
<td>Nicholas Lu</td>
<td>Declarative Mocking Hesam Samimi, Rebecca Hicks, Ari Fogel, Todd Millstein (ISSSTA 2013)</td>
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**Fall 2015**

This semester the seminar is co-organized by Ali Kheradmand and Owolabi Legunsen.

Fall 2015 meetings: 4407 SC, 4:00 pm - 5:00 pm on Tuesdays.

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<tr>
<td>09/01</td>
<td>Amarin Phaosawasdi</td>
<td>Doing Research and Surviving Grad School by Amarin Phaosawasdi</td>
</tr>
<tr>
<td>09/08</td>
<td>Owolabi Legunsen</td>
<td>Ongoing work on Evolution-Aware Monitoring-Oriented Programming (eMOP) Evolution-Aware Monitoring-Oriented Programming by Owolabi Legunsen, Darko Marinov, Grigore Rosu (ICSE NIER 2015)</td>
</tr>
<tr>
<td>09/15</td>
<td>Mengqi Gu</td>
<td>Characterizing Performance Bugs of Application-Database Interactions in Open-Source Software (Ongoing work)</td>
</tr>
<tr>
<td>09/22</td>
<td></td>
<td>Company visit</td>
</tr>
<tr>
<td>09/29</td>
<td></td>
<td>Company visit</td>
</tr>
<tr>
<td>10/06</td>
<td>Alex Gyori</td>
<td>Proving Programs Robust by Swarat Chaudhuri, Sumit Gulwani, Roberto Lublinerman and Sara Navidpour (Venue: SC 4407)</td>
</tr>
<tr>
<td>10/13</td>
<td>Cosmin Radoi</td>
<td>Evolutionary Program Transformation</td>
</tr>
<tr>
<td>10/20</td>
<td>Wing Lam</td>
<td>When Tests Collide: Evaluating and Coping with the Impact of Test Dependence by Wing Lam, Sai Zhang, Michael D. Ernst</td>
</tr>
<tr>
<td>Date</td>
<td>Discussion Leader</td>
<td>Topic</td>
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<tr>
<td>10/27</td>
<td>Ali Kheradmand</td>
<td>Maximal Sound Predictive Race Detection with Control Flow Abstraction by Jeff Huang, Patrick O'Neil Meredith, Grigore Rosu (PLDI'14)</td>
</tr>
<tr>
<td>11/03</td>
<td>Daejun Park</td>
<td>KJS: A Complete Formal Semantics of JavaScript by Daejun Park, Andrei Stefanescu, Grigore Rosu (PLDI '15)</td>
</tr>
<tr>
<td>11/17</td>
<td>Dengfeng (Davis) Li</td>
<td>Automated modularization of GUI test cases by Rahulkrishna Yandrapally, Giriprasad Sridhara and Saurabh Sinha</td>
</tr>
<tr>
<td>12/01</td>
<td>Jon Bell (Columbia University)</td>
<td>Test Dependencies and the Future of Test Acceleration</td>
</tr>
<tr>
<td>12/10</td>
<td>Lu Xiao (Drexel University)</td>
<td>Bridging the Gap between Software Architecture and Quality based on DRSpace Model</td>
</tr>
</tbody>
</table>

**Spring 2015**

This semester the seminar is co-organized by Mengqi Gu and Qi Wang.

Spring 2015 meetings: 4407 SC, 12:00 PM - 1:00 PM on Wednesdays.

<table>
<thead>
<tr>
<th>Date</th>
<th>Discussion Leader</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/21</td>
<td>All (especially Darko and Tao)</td>
<td>Organizational Meeting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How to Read an Engineering Research Paper</td>
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<td></td>
<td></td>
<td>William G. Griswold</td>
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<td></td>
<td></td>
<td>Writing Good Software Engineering Research Papers</td>
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<tr>
<td></td>
<td></td>
<td>Mary Shaw (ICSE 2003)</td>
</tr>
<tr>
<td>01/28</td>
<td>Lamyaa Eloussi, Mengqi Gu</td>
<td>Using Portfolio Theory for Better and More Consistent Quality, Ken Koster, ISSTA 07</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A Model and Sensitivity Analysis of the Quality Economics of Defect-Detection Techniques, Stefan Wagner, ISSTA 06</td>
</tr>
<tr>
<td>02/04</td>
<td>Karl Palmskog, Wei Yang</td>
<td>Network-Oblivious Programmers, Network-Aware Program Execution</td>
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<tr>
<td></td>
<td></td>
<td>AppContext: Differentiating Malicious and Benign Mobile App Behavior under Contexts, ICSE 15</td>
</tr>
<tr>
<td>02/11</td>
<td>Peng Liu</td>
<td>Debugging Concurrent Programs with Guarantees</td>
</tr>
<tr>
<td>02/18</td>
<td>Farah Hariri</td>
<td>DETERMIN: Inferring Likely Deterministic Specifications of Multithreaded Programs, Jacob Burnim, Koushik Sen, ICSE10</td>
</tr>
<tr>
<td>02/25</td>
<td>August Shi</td>
<td>Unit Test Virtualization with VMVM, Jonathan Bell, Gail Kaiser, ICSE 14'</td>
</tr>
<tr>
<td>03/04</td>
<td>Aditya Varun Sharda</td>
<td>Improving oracle quality by detecting brittle assertions and unused inputs in tests FSE 14'</td>
</tr>
<tr>
<td>Date</td>
<td>Discussion Leader</td>
<td>Topic</td>
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<tr>
<td>03/11</td>
<td>All</td>
<td>Writer’s work shop</td>
</tr>
<tr>
<td>03/18</td>
<td>Anirudh Jayakumar, Diksha Arora</td>
<td>Performance Regression Testing Target Prioritization via Performance Risk Analysis Techniques for Improving Regression Testing in Continuous Integration Development Environments</td>
</tr>
<tr>
<td>04/01</td>
<td>Peyman Mahdian, Blake Basset</td>
<td>An empirical study of build maintenance effort ICSE 11’ Programs’ build errors: a case study (at google) ICSE 14’</td>
</tr>
<tr>
<td>04/08</td>
<td>Fan Yang</td>
<td>Coverage is not strongly correlated with test suite effectiveness ICSE 14’</td>
</tr>
<tr>
<td>04/15</td>
<td>Sihan Li</td>
<td>Dynamic partial-order reduction for model checking software POPL 05’</td>
</tr>
<tr>
<td>04/22</td>
<td>Piyush Shrivastava, Shivam Upadhyay</td>
<td>Testing Idempotence for Infrastructure as Code Middleware 13’ Understanding and improving software build teams ICSE 14’</td>
</tr>
<tr>
<td>04/29</td>
<td>Sanjana Chandrashekar</td>
<td>Robust test automation using contextual clues Rahulkrishna Yandrapally, Suresh Thummalapenta, Saurabh Sinha, Satish Chandra, ISSTA 14’</td>
</tr>
<tr>
<td>05/06</td>
<td>Amarin Phaosawasdi</td>
<td>Cascade: A Universal Programmer-assisted Type Qualifier Inference Tool Mohsen Vakilian, Amarin Phaosawasdi, Michael D. Ernst, Ralph E. Johnson, ICSE 15’</td>
</tr>
<tr>
<td>05/13</td>
<td>Final Week</td>
<td>How to Ace an exam?</td>
</tr>
</tbody>
</table>

**Fall 2014**

This semester the seminar is co-organized by Farah Hariri and Alex Gyori.

Fall 2014 meetings: 4407 SC, 5:00 PM - 6:00 PM on Wednesdays.

<table>
<thead>
<tr>
<th>Date</th>
<th>Discussion Leader</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>09/03</td>
<td>All</td>
<td>Organizational Meeting</td>
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<tr>
<td></td>
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<td>How to Read an Engineering Research Paper</td>
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<td>William G. Griswold</td>
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<td>Writing Good Software Engineering Research Papers</td>
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<tr>
<td></td>
<td></td>
<td>Mary Shaw (ICSE 2003)</td>
</tr>
<tr>
<td>09/10</td>
<td>All</td>
<td>Group presentations</td>
</tr>
<tr>
<td>09/17</td>
<td>Wei Yang</td>
<td>User interactions and App security</td>
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<td></td>
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<td>Presented Paper:</td>
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<td></td>
<td></td>
<td>Hidden GEMs: Automated Discovery of Access. Control Vulnerabilities in Graphical User Interfaces (OakLand 2014)</td>
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<td>Related Papers:</td>
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<td></td>
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<td>Peeking into Your App without Actually Seeing It: UI State Inference and Novel Android Attacks (USENIX 2014)</td>
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<td>Blind Recognition of Touched Keys: Attack and Countermeasures (CCS 2014)</td>
</tr>
<tr>
<td>Date</td>
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<tr>
<td>10/15</td>
<td>Alex Gyori</td>
<td>Program Verification</td>
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<tr>
<td>10/29</td>
<td>August Shi</td>
<td>Balancing Trade-Offs in Test-Suite Reduction</td>
</tr>
<tr>
<td>11/05</td>
<td>Yu Lin</td>
<td>Retrofitting Concurrency for Android Applications through Refactoring</td>
</tr>
<tr>
<td>11/12</td>
<td>-</td>
<td>Canceled! August will give a second practice talk for his FSE presentation at the same time, you're encouraged to attend.</td>
</tr>
<tr>
<td>11/19</td>
<td>Owolabi Legunsen</td>
<td>Writer's workshop</td>
</tr>
<tr>
<td>12/03</td>
<td>Michael Kang Lu</td>
<td>Feedback Generation for Performance Problems in Introductory Programming Assignments</td>
</tr>
<tr>
<td>12/10</td>
<td>Su Yang and Mengqi Gu</td>
<td>Characterizing and Detecting Performance Bugs for Smartphone Applications</td>
</tr>
</tbody>
</table>
## Spring 2014

This semester the seminar is co-organized by Sihan Li

Spring 2014 meetings: 4407 SC, 5:00pm – 6:00pm on Thursdays

<table>
<thead>
<tr>
<th>Date</th>
<th>Discussion Leader</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/23</td>
<td>All</td>
<td>Organizational Meeting</td>
</tr>
<tr>
<td>01/30</td>
<td>All</td>
<td>Review and discuss the job application materials of SE candidates</td>
</tr>
<tr>
<td>02/06</td>
<td>All</td>
<td>Continue to review and discuss the job application materials of SE candidates</td>
</tr>
<tr>
<td>02/13</td>
<td>Mohsen Vakilian</td>
<td>Writers’ Workshop</td>
</tr>
<tr>
<td>02/20</td>
<td>Milos Gligoric</td>
<td>Scaling Regression Testing to Large Software Systems by Alessandro Orso, Nanjuan Shi, and Mary Jean Harrold</td>
</tr>
<tr>
<td>02/27</td>
<td>Mohsen Vakilian</td>
<td>Less Is Sometimes More in the Automation of Software Evolution Tasks</td>
</tr>
<tr>
<td>03/06</td>
<td>Cansu Erdogan</td>
<td>Comparative causality; explaining the differences between executions by William N. Sumner, Xiangyu Zhang</td>
</tr>
<tr>
<td>03/20</td>
<td>Alex Gyori</td>
<td>Lightweight Control-Flow Instrumentation and Postmortem Analysis in Support of Debugging by Peter Ohmann, Ben Liblit</td>
</tr>
<tr>
<td>04/03</td>
<td>Wei Yang</td>
<td>KLEE: Unassisted and Automatic Generation of High-Coverage Tests for Complex Systems Programs by Cristian Cadar, Daniel Dunbar, Dawson Engler</td>
</tr>
<tr>
<td>04/10</td>
<td>Blake Bassett</td>
<td>Enhancing Symbolic Execution with Veritesting by Thanassios Avgerinos, Alexandre Rebert, Sang Kil Cha, and David Brumley</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Symbolic PathFinder: integrating symbolic execution with model checking for Java bytecode analysis by Corina S. Pasareanu, Willem Visser, David H. Bushnell, Jaco Geldenhuys, Peter C. Mehlitz, Neha Rungta</td>
</tr>
<tr>
<td>04/17</td>
<td>Yi Zhang</td>
<td>Calysto: Scalable and Precise Extended Static Checking by Domagoj Babic and Alan J. Hu</td>
</tr>
<tr>
<td>05/01</td>
<td>Farah Hariri</td>
<td>Proofs from Tests by Nels E. Beckman, Aditya V. Nori, Sriram K. Rajamani, Robert J. Simmons, Sai Deep Tetali, and Aditya V. Thakur</td>
</tr>
<tr>
<td>05/08</td>
<td>Sihan Li</td>
<td>Dynamic Analysis for Measuring Behavioral Similarity by Sihan Li, Xusheng Xiao, Blake Bassett, Tao Xie, Nikolai Tillmann</td>
</tr>
</tbody>
</table>

## Fall 2013

This semester the seminar is co-organized by Yu Lin

Fall 2013 meetings: 4407 SC, 4:00pm – 5:00pm on Thursdays

The paper list for the seminar can be found [here](#).
<table>
<thead>
<tr>
<th>Date</th>
<th>Discussion Leader</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/05</td>
<td>All</td>
<td>Organizational Meeting</td>
</tr>
<tr>
<td>09/12</td>
<td>Miryung Kim (UT Austin)</td>
<td>Automation, Analysis, and Reconstruction of Systematic Software Changes</td>
</tr>
<tr>
<td>09/19</td>
<td>Darko Marinov</td>
<td>A learning-based method for combining testing techniques by Domenico Cotroneo, Roberto Pietranuono, and Stefano Russo (ICSE '13)</td>
</tr>
<tr>
<td>09/26</td>
<td>All</td>
<td>Half-day meeting to discuss research projects and collaborations</td>
</tr>
<tr>
<td>10/03</td>
<td>Alex Gyori</td>
<td>Finding incorrect compositions of atomicity by Peng Liu, Julian Dolby, and Charles Zhang (FSE '13)</td>
</tr>
<tr>
<td>10/10</td>
<td>Michael Lyu</td>
<td>From Software Reliability Engineering to Service Reliability Engineering</td>
</tr>
<tr>
<td>10/17</td>
<td>August Shi</td>
<td>Cachetor: detecting cacheable data to remove bloat by Khanh Nguyen and Guoqing Xu (FSE '13)</td>
</tr>
<tr>
<td>10/24</td>
<td>Wei Yang</td>
<td>Targeted and Depth-first Exploration for Systematic Testing of Android Apps by Tanzirul Azim and Iulian Neamflui (OOPSLA '13)</td>
</tr>
<tr>
<td>10/31</td>
<td>Lamyaa Eloussi</td>
<td>KATCH: High-Coverage Testing of Software Patches by Paul Dan Marinescu and Cristian Cadar (FSE '13)</td>
</tr>
<tr>
<td>11/07</td>
<td>Sai Zhang (UW)</td>
<td>Automated Diagnosis of End-User-Fixable Errors</td>
</tr>
<tr>
<td>11/14</td>
<td>Rohan Sharma</td>
<td>Interaction-Based Test-Suite Minimization by Dale Blue, Itai Segall, Rachel Tzoref-Brill, and Aviad Zlotnick (ICSE '13)</td>
</tr>
<tr>
<td>11/21</td>
<td>Farah Hariri</td>
<td>Is This a Bug or an Obsolete Test by Dan Hao, Tian Lan, Hongyu Zhang, Chao Guo, and Lu Zhang (ECOOP '13)</td>
</tr>
<tr>
<td>12/05</td>
<td>Yuan Chen</td>
<td>Efficient Concurrency-Bug Detection Across Inputs by Dongdong Deng, Wei Zhang and Shan Lu</td>
</tr>
<tr>
<td>12/12</td>
<td>Jeff Huang</td>
<td>Effective Methods for Debugging Concurrent Software</td>
</tr>
</tbody>
</table>

**Spring 2013**

This semester the seminar is co-organized by Milos Gligoric

Spring 2013 meetings: 4124 SC, 10:00am – 11:00am on Thursdays

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<thead>
<tr>
<th>Date</th>
<th>Discussion Leader</th>
<th>Topic</th>
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<tbody>
<tr>
<td>01/17</td>
<td>Danny Dig Milos Gligoric</td>
<td>About Brett Daniel Software Engineering Seminar</td>
</tr>
<tr>
<td>01/24</td>
<td>Mihai Codoban</td>
<td>Design Lessons from the Fastest Q&amp;A Site in the West by Lena Mamykina, Bella Manoim, Manas Mittal, George Hripcsak, and Bjorn Hartmann (CHI'11)</td>
</tr>
<tr>
<td>Date</td>
<td>Discussion Leader</td>
<td>Topic</td>
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<tr>
<td>01/31</td>
<td>Caius Brindescu</td>
<td><em>A Taxonomy of Change Types and its Application in Software Evolution</em> by Steffen Lehnert, Qurat-ul-ann Farooq, and Matthias Riebisch (ECBS'12)</td>
</tr>
<tr>
<td>02/07</td>
<td>Mohsen Vakilian</td>
<td><em>Relm &amp; RelmInfer: Checking and Inference of Reference Immutability and Method Purity</em> by Wei Huang, Ana Milanova, Werner Dietl, and Michael D. Ernst (OOPSLA’12)</td>
</tr>
<tr>
<td>02/14</td>
<td>Danny Dig</td>
<td>JT</td>
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<tr>
<td>02/21</td>
<td>Mohsen Vakilian</td>
<td>Writer's Workshop</td>
</tr>
<tr>
<td>02/28</td>
<td>Claire Le Goues</td>
<td>Automatic Program Repair Using Genetic Programming</td>
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<tr>
<td>03/07</td>
<td>Samira Tasharofi</td>
<td><em>Maple: a coverage-driven testing tool for multithreaded programs</em> by Jie Yu, Satish Narayanasamy, Cristiano Pereira, and Gilles Pokam (OOPSLA’12)</td>
</tr>
<tr>
<td>03/14</td>
<td>Yu Lin</td>
<td>PT</td>
</tr>
<tr>
<td>03/28</td>
<td>Yilong Li</td>
<td><em>HDD: Hierarchical Delta Debugging</em> by Ghassan Misherghi and Zhendong Su (ICSE'06)</td>
</tr>
<tr>
<td>04/04</td>
<td>Hamid Jahani</td>
<td><em>Expectations, Outcomes, and Challenges Of Modern Code Review</em> by Alberto Bacchelli and Christian Bird (ICSE’13)</td>
</tr>
<tr>
<td>04/11</td>
<td>Qingzhou Luo</td>
<td><em>Understanding and Detecting Real-World Performance Bugs</em> by Guoliang Jin Linhai, Song Xiaoming Shi, Joel Scherpelz, and Shan Lu (PLDI'12)</td>
</tr>
<tr>
<td>04/18</td>
<td>Writer's Workshop</td>
<td>Systematic Testing of Refactoring Engines on Real Software Projects</td>
</tr>
<tr>
<td>04/25</td>
<td>Stas Negara</td>
<td><em>Why Don't Software Developers Use Static Analysis Tools to Find Bugs?</em> by Brittany Johnson, Yoonki Song, Emerson Murphy-Hill, and Robert Bowdidge (ICSE’13)</td>
</tr>
</tbody>
</table>

**Fall 2012**

This semester we will focus on **COPE**.

Fall 2012 meetings: 2407 SC, 2:00pm – 3:00pm on Wednesdays

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<thead>
<tr>
<th>Date</th>
<th>Discussion Leader</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/29</td>
<td>Danny Dig</td>
<td>Change-oriented Programming Environment <em>(COPE summary)</em> by Danny Dig, Ralph Johnson, Darko Marinov, and Brian Bailey</td>
</tr>
<tr>
<td>09/05</td>
<td>Danny Dig</td>
<td>Change-oriented Programming Environment <em>(hard-copy handed at last seminar. Get a copy from SC 3212.)</em> by Danny Dig, Ralph Johnson, Darko Marinov, and Brian Bailey</td>
</tr>
<tr>
<td>09/12</td>
<td>Darko Marinov</td>
<td><em>How Do Software Engineers Understand Code Changes? - An Exploratory Study in Industry</em> by Yida Tao, Yingnong Dang, Tao Xie, Dongmei Zhang, Sunghun Kim (FSE’12)</td>
</tr>
<tr>
<td>Date</td>
<td>Presenter</td>
<td>Topic</td>
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<tr>
<td>09/19</td>
<td>Stas Negara</td>
<td>How Often Do Unintended Inconsistencies Happen?— Deriving Modification Patterns and Detecting Overlooked Code Fragments — by Yoshiki Higo and Shinji Kusumoto (ICSM'12)</td>
</tr>
<tr>
<td>09/26</td>
<td>Federica Paci (University of Trento)</td>
<td>How Do You Know that a Security Requirements Method Actually Works? (Joint meeting with the ITI Trust and Security Seminar)</td>
</tr>
<tr>
<td>10/03</td>
<td>Mihai Codoban</td>
<td>Refactoring Edit History of Source Code by Shinpei Hayashi, Takayuki Omori, Teruyoshi Zenmyo, Katsuhisa Maruyama and Motoshi Saeki (ICSM'12)</td>
</tr>
<tr>
<td>10/10</td>
<td>Krzysztof Zienkiewicz &amp; Caius Brindescu</td>
<td>Untangling Changes by Kim Herzig, Andreas Zeller (TR Sep’11)</td>
</tr>
<tr>
<td>10/17</td>
<td>Danny Dig</td>
<td>Speculative Analysis of Integrated Development Environment Recommendations by Kvacn Muslu, Yuriy Brun, Reid Holmes, Michael D. Ernst, David Notkin (OOPSLA’12)</td>
</tr>
<tr>
<td>10/24</td>
<td>Writer’s Workshop</td>
<td>A Compositional Approach to Automating Refactorings by Mohsen Vakilian, Nicholas Chen, Roshanak Zilouchian Moghaddam, Stas Negara, and Ralph E. Johnson</td>
</tr>
<tr>
<td>10/31</td>
<td>Don Batory</td>
<td>Intentional Software by Charles Simonyi, Magnus Christerson, Shane Clifford (OOPSLA’06)</td>
</tr>
<tr>
<td>11/07</td>
<td>Bilge Acun</td>
<td>History Slicing: Assisting Code-Evolution Tasks by Francisco Servant and James Jones (FSE’12)</td>
</tr>
<tr>
<td>11/14</td>
<td>Dwight Guth</td>
<td>Understanding Myths and Realities of Test-Suite Evolution by Leandro Sales Pinto, Saurabh Sinha, and Alessandro Orso (FSE’12)</td>
</tr>
<tr>
<td>11/28</td>
<td>Mohsen Vakilian</td>
<td>Improving Software Developers’ Fluency by Recommending Development Environment Commands by Emerson Murphy-Hill, Rahul Jiresal and Gail C. Murphy (FSE’12)</td>
</tr>
<tr>
<td>12/05</td>
<td>Semih Okur</td>
<td>Graph-based pattern-oriented, context-sensitive source code completion by Anh Tuan Nguyen, Tung Thanh Nguyen, Hoan Anh Nguyen Ahmed Tamrawi, Hung Viet Nguyen, Jafar Al-Kofahi, Tien N. Nguyen (ICSE’12)</td>
</tr>
<tr>
<td>12/12</td>
<td>Qingzhou Luo</td>
<td>LASE: Locating and Applying Systematic Edits by Learning from Examples by Na Meng, Miryung Kim, and Kathryn S. McKinley (ICSE’13)</td>
</tr>
</tbody>
</table>

**Spring 2012**

In Spring 2012, the seminar is co-organized by Mohsen Vakilian
Spring 2012 meetings: 3124 SC, 2:30pm – 3:30pm on Mondays
<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/23</td>
<td>Stas Negara</td>
<td>Systematic Editing: Generating Program Transformations from an Example by Na Meng, Miryung Kim, and Kathryn S. McKinley (PLDI 2011)</td>
</tr>
<tr>
<td>01/30</td>
<td>Sandro Badame</td>
<td>Aligning Development Tools with the Way Programmers Think About Code Changes by Marat Boshernitsan, Susan L. Graham, and Martí A. Hearst (CHI 2007)</td>
</tr>
<tr>
<td>02/06</td>
<td>Writer's Workshop</td>
<td>How Do Developers Use Parallel Libraries? by Semih Okur and Danny Dig</td>
</tr>
<tr>
<td>02/13</td>
<td>Writer's Workshop</td>
<td>TransDPOR: A Novel Partial-Order Reduction Technique for Testing of Actor Programs by Samira Tasharofi, Rajesh Karmani, Steven Lauterburg, Axel Legay, Darko Marinov, and Gul Agha</td>
</tr>
<tr>
<td>02/20</td>
<td>Jon Tedesco</td>
<td>Active Code Completion by Cyrus Omar, YoungSeok Yoon, Thomas D. LaToza, and Brad A. Myers (To Appear in ICSE 2012)</td>
</tr>
<tr>
<td>02/27</td>
<td>Writer's Workshop</td>
<td>Use, Disuse, and Misuse of Automated Refactorings by Mohsen Vakilian, Nicholas Chen, Stas Negara, Balaji Ambresh Rajkumar, Brian P. Bailey, Ralph E. Johnson (To Appear in ICSE 2012)</td>
</tr>
<tr>
<td>03/05</td>
<td>Writer's Workshop</td>
<td>Understanding Integer Overflow in C/C++ by Will Dietz, Peng Li, John Regehr, and Vikram Adve (To Appear in ICSE 2012)</td>
</tr>
<tr>
<td>03/12</td>
<td>Michael Hind (IBM Research)</td>
<td>The Impact of Multicore Architectures on Software: Disaster or Opportunity?</td>
</tr>
<tr>
<td>03/26</td>
<td>Shin Hwei Tan</td>
<td>Practice talk for @javadoc: Testing Javadoc Comments to Detect Comment-Code Inconsistencies by Shin Hwei Tan, Darko Marinov, Lin Tan, Gary T. Leavens (To Appear in ICST 2012)</td>
</tr>
<tr>
<td>04/02</td>
<td>Yu Lin</td>
<td>Evaluating Machine-Independent Metrics for State-Space Exploration by Vilas Jagannath, Matt Kim, Yu Lin and Darko Marinov (To Appear in ICST 2012)</td>
</tr>
<tr>
<td>04/09</td>
<td>Feng Qin (The Ohio State University)</td>
<td>Hunting Bugs in General-Purpose and High-Performance Systems</td>
</tr>
<tr>
<td>04/16</td>
<td>Stas Negara</td>
<td>Reconciling Manual and Automatic Refactoring by Xi Ge, Quinton L. DuBose, and Emerson Murphy-Hill (To Appear in ICSE 2012)</td>
</tr>
<tr>
<td>04/30</td>
<td>Nipun Sehrawat</td>
<td>Testing Atomicity of Composed Concurrent Operations by Ohad Shacham, Nathan Bronson, Alex Aiken, Mooyi Sagiv, Martin Vechev, and Eran Yahav (OOPSLA 2011)</td>
</tr>
</tbody>
</table>

**Fall 2011**

Fall 2011 meetings: 3124 SC, 11:00 am – 12:00 pm on Wednesdays
<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/24</td>
<td>All</td>
<td>Organizational Meeting (mandatory)</td>
</tr>
<tr>
<td>08/31</td>
<td>All</td>
<td>Brainstorming research questions that could be answered with CodingTracker data. Related paper: <em>A Change-based Approach to Software Evolution</em> by Romain Robbes and Michele Lanza (ENTCS 2007)</td>
</tr>
<tr>
<td>09/14</td>
<td>Qingzhou Luo, Adrian Nistor</td>
<td>Line-Up: A Complete and Automatic Linearizability Checker by Sebastian Burckhardt, Chris Dern, Madanlal Musuvathi, and Roy Tan (PLDI 2010)</td>
</tr>
<tr>
<td>09/21</td>
<td>Samira Tasharofi</td>
<td>A Trace Simplification Technique for Effective Debugging of Concurrent Programs by Nicholas Jalbert and Koushik Sen (FSE 2010)</td>
</tr>
<tr>
<td>10/05</td>
<td>Francesco Sorrentino</td>
<td>Symbolic Predictive Analysis for Concurrent Programs by Chao Wang, Sudipta Kundu, Malay Ganai, and Aarti Gupta Testing Concurrent Programs on Relaxed Memory Models by Jacob Burnim, Koushik Sen, and Christos Stergiou</td>
</tr>
<tr>
<td>10/12</td>
<td>Mohsen Vakilian</td>
<td>The Need for Richer Refactoring Usage Data by Mohsen Vakilian, Nicholas Chen, Stas Negara, Rajkumar Balaji Ambresh, Roshanak Zilouchian Moghaddam, Ralph E. Johnson (PLATEAU 2011)</td>
</tr>
<tr>
<td>10/19</td>
<td>Nick Chen</td>
<td>Language of Language demo for OOPSLA /SPLASH</td>
</tr>
<tr>
<td>10/26</td>
<td>Writer's Workshop</td>
<td>Fast and precise race analysis for loop-parallel Java programs by Cosmin Radoi and Danny Dig</td>
</tr>
<tr>
<td>11/09</td>
<td>Matt Kirn</td>
<td>A practical guide for using statistical tests to assess randomized algorithms in software engineering by Andrea Arcuri and Lionel Briand (ICSE 2011)</td>
</tr>
<tr>
<td>11/16</td>
<td>Yu Lin</td>
<td>Automated Atomicity-Violation Fixing by Guoliang Jin, Linhai Song, Wei Zhang, Shan Lu, and Ben Liblit (PLDI 2011)</td>
</tr>
<tr>
<td>11/30</td>
<td>Chen Fu (Accenture Labs)</td>
<td>Maintaining And Evolving GUI-Directed Test Scripts by Mark Grechanik, Qing Xie, and Chen Fu (ICSE 2009)</td>
</tr>
<tr>
<td>12/07</td>
<td>Semih Okur</td>
<td>Are Java Programmers Transitioning to Multicore? A Large Scale Study of Java FLOSS by Wesley Torres, Gustavo Pinto, Benito Fernandes, Joao Paulo Oliveira, Filipe Ximenes, Fernando Castor (WTMC 2011)</td>
</tr>
</tbody>
</table>

Spring 2011
<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/19</td>
<td>Mohsen Vakilian</td>
<td>An Empirical Investigation into the Role of Refactorings during Software Evolution by Miryung Kim, Dongxiang Cai, Sunghun Kim (ICSE'11)</td>
</tr>
<tr>
<td>01/26</td>
<td>Danny Dig</td>
<td>Refactoring Java programs for flexible locking, by Max Schäfer, Manu Sridharan, Julian Dolby, and Frank Tip (ICSE'11)</td>
</tr>
<tr>
<td>02/09</td>
<td>Stas Negara</td>
<td>practice talk for Inferring Ownership Transfer for Efficient Message Passing by Stas Negara, Rajesh K. Karmani, and Gul Agha (PPoPP 2011)</td>
</tr>
<tr>
<td>02/23</td>
<td>Jurand Nogiec</td>
<td>Code bubbles: rethinking the user interface paradigm of integrated development environments by Andrew Bragdon, Steven P. Reiss, Robert Zeleznik, Suman Karumuri, William Cheung, Joshua Kaplan, Christopher Coleman, Ferdi Adeputra, Joseph J. LaViola, Jr. (ICSE’10)</td>
</tr>
<tr>
<td>03/02</td>
<td>Samira, Mohsen, Stas</td>
<td>Effective Static Analysis to Find Concurrency Bugs in Java by Luo, Zhi Da, Linda Hillis, Raja Das, and Yao Qi (SCAM'10)</td>
</tr>
<tr>
<td>03/16</td>
<td>Sandro Badame</td>
<td>Refactoring Pipe-like Mashups for End-User Programmers by Kathryn T. Stolee and Sebastian Elbaum (ICSE’11)</td>
</tr>
<tr>
<td>03/30</td>
<td>Karthik Manamcheri</td>
<td>Symbolic Model Checking of Software Product Lines by Andreas Classen, Patrick Heymans, Pierre-Yves Schobbens, and Axel Legay (ICSE’11)</td>
</tr>
<tr>
<td>04/06</td>
<td>Shin Hwei Tan</td>
<td>Automatic Documentation Inference for Exceptions by Raymond Buse and Westley Weimer (ISSTA ’08)</td>
</tr>
<tr>
<td>04/13</td>
<td>Cosmin Radoi</td>
<td>Effective Static Race Detection in Java (local copy here) by Mayur Naik, Alex Aiken, John Whaley (PLDI’06)</td>
</tr>
<tr>
<td>04/20</td>
<td>Jeff Overbey</td>
<td>Writer’s Workshop</td>
</tr>
<tr>
<td>05/04</td>
<td>Fredrik Kjolstad</td>
<td>Transformation for Class Immutability by F. Kjolstad and D. Dig and G. Acevedo and M. Snir (ICSE 2011)</td>
</tr>
</tbody>
</table>
In Fall 2010, the seminar was co-organized by Jeff Overbey and Samira Tasharofi
Fall 2010 meetings: 3124 SC, 2:00 pm – 3:00 pm on Wednesdays
The Fall 2010 presentation schedule was/is available as an iCalendar and as an Atom (XML) feed.

<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/25</td>
<td>Mohsen Vakilian</td>
<td>Correct Refactoring of Concurrent Java Code by Max Schäfer, Julian Dolby, Manu Sridharan, Emina Torlak and Frank Tip (ECOO 2010)</td>
</tr>
<tr>
<td>09/01</td>
<td>Jeff Overbey</td>
<td>Stepping Stones over the Refactoring Rubicon: Lightweight Language Extensions to Easily Realise Refactorings by Max Schäfer, Mathieu Verbaere, Torbjörn Ekman and Oege de Moor (ECOO 2009)</td>
</tr>
<tr>
<td>09/08</td>
<td>Samira Tasharofi</td>
<td>Finding Race Conditions in Erlang with QuickCheck and PULSE by Koen Claessen, Michal Palka, Nicholas Smallbone, John Hughes, Hans Svensson, Thomas Arts, and Ulf Wiger (ICFP 2009)</td>
</tr>
<tr>
<td>09/15</td>
<td>Rajesh Karmani</td>
<td>Separating Functional and Parallel Correctness using Nondeterministic Sequential Specifications by Jacob Burnim, George Necula, and Koushik Sen (HotPar ’10)</td>
</tr>
<tr>
<td>09/22</td>
<td>Nicholas Chen</td>
<td>Breaking the Barriers to Successful Refactoring: Observations and Tools for Extract Method by Emerson Murphy-Hill and Andrew P. Black (ICSE 2008)</td>
</tr>
<tr>
<td>09/29</td>
<td>Vilas Jagannath</td>
<td>Regression Model Checking by Guowei Yang, Matthew B. Dwyer, Gregg Rothermel (ICSM 2009)</td>
</tr>
<tr>
<td>10/06</td>
<td>Cosmin Radoi</td>
<td>Towards a Holistic Approach to Auto-Parallelization by Georgios Tournavitis, Zheng Wang, Björn Franke, and Michael F.P. O'Boyle (PLDI ’09)</td>
</tr>
<tr>
<td>10/13</td>
<td>Nicholas Chen</td>
<td>Parallelizing Sequential Programs With Statistical Accuracy Tests by Sasa Misailovic, Deokhwan Kim and Martin Rinard (Tech Report)</td>
</tr>
<tr>
<td>10/27</td>
<td>Nicholas Chen</td>
<td>Discussion of SPLASH 2010 Events</td>
</tr>
<tr>
<td>11/10</td>
<td>Matt Kirn</td>
<td>Verifiable Functional Purity in Java by Matthew Finifter, Adrian Mettler, Naveen Sastry, and David Wagner</td>
</tr>
</tbody>
</table>
11/17 | Qingzhou Luo | Lightweight Deterministic Multi-processor Replay of Concurrent Java Programs by Jeff Huang, Peng Liu, and Charles Zhang (FSE2010)

12/01 | Sasa Misailovic (MIT) | Quality of Service Profiling

12/08 | Charlie Meyer | Practical and Effective Symbolic Analysis for Buffer Overflow Detection by Lian Li, Cristina Cifuentes, Nathan Keynes (FSE 2010)

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### Spring 2010

In Spring 2010, the seminar was co-organized by Vilas Jagannath. Spring 2010 meetings: 4124 SC, 4:00 pm – 5:00 pm on Fridays

<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/22</td>
<td>Everyone</td>
<td>Organizational Meeting (mandatory)</td>
</tr>
<tr>
<td>01/29</td>
<td>Nicholas Chen</td>
<td>Flapjax: A Programming Language for Ajax Applications by Leo Meyerovich, Arjun Guha, Jacob Baskin, Greg Cooper, Michael Greenberg, Aleks Bromfield and Shriram Krishnamurthi (OOPSLA 2009)</td>
</tr>
<tr>
<td>02/05</td>
<td>Danny Dig</td>
<td>Job Practice Talk</td>
</tr>
<tr>
<td>02/19</td>
<td>Brett Daniel</td>
<td>On the Interplay Between Software Testing and Evolution and its Effect on Program Comprehension by Leon Moonen, Arie van Deursen, Andy Zaidman, and Magiel Bruntink</td>
</tr>
<tr>
<td>02/26</td>
<td>Edgar Pek</td>
<td>Safe and Timely Dynamic Updates for Multithreaded Programs by Iulian Neamtiu and Michael Hicks</td>
</tr>
<tr>
<td>03/05</td>
<td>Samira TasharofI</td>
<td>Is transactional programming actually easier?</td>
</tr>
<tr>
<td>03/12</td>
<td>Rajesh Karmani</td>
<td>Evaluating Ordering Heuristics for Dynamic Partial-Order Reduction Techniques</td>
</tr>
<tr>
<td>03/19</td>
<td>Writer's Workshop for OOPSLA submission</td>
<td>Immutator: Making Classes Immutable, by Fredrik Kjolstad, Gabriel Avecedo, Danny Dig</td>
</tr>
<tr>
<td>03/26</td>
<td>Wolfram Schulte (Microsoft Research)</td>
<td>SPUR: A Trace-Based JIT Compiler for CIL by Manuel Fahndrich, Francesco Logozzo, Wolfram Schulte, Nikolai Tillmann and Herman Venter</td>
</tr>
<tr>
<td>04/02</td>
<td>Vilas Jagannath</td>
<td>MuTMuT: Efficient Exploration for Mutation Testing of Multithreaded Code</td>
</tr>
<tr>
<td>04/06</td>
<td>Swarup Kumar Sahoo</td>
<td>An Empirical Study of Reported Bugs in Server Software with Implications for Automated Bug Diagnosis by Swarup K Sahoo, John Criswel and Vikram S. Adve</td>
</tr>
<tr>
<td>04/16</td>
<td>Choonghwan Lee</td>
<td>Mining Exception-Handling Rules as Sequence Association Rules by Suresh Thummalapenta and Tao Xie</td>
</tr>
</tbody>
</table>
### Fall 2009

In Fall 2009, the seminar was co-organized by Steven Lauterburg.

Fall 2009 meetings: 3124 SC, 3:30 pm – 4:30 pm on Wednesdays

<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/26</td>
<td>no meeting</td>
<td><strong>How to Read an Engineering Research Paper</strong>&lt;br&gt;by William G. Griswold&lt;br&gt;<strong>Writing Good Software Engineering Research Papers</strong>&lt;br&gt;by Mary Shaw (ICSE 2003)</td>
</tr>
<tr>
<td>09/02</td>
<td>Brett Daniel</td>
<td><strong>Writer's workshop on UDITA: Unified Declarative and Imperative Test Abstractions</strong></td>
</tr>
<tr>
<td>09/09</td>
<td>Danny Dig</td>
<td><strong>ReLooper: Refactoring for Loop Parallelism</strong>&lt;br&gt;by Danny Dig, Cosmin Radoi, Mihai Tarce, Marius Minea and Ralph Johnson</td>
</tr>
<tr>
<td>09/16</td>
<td>Samira Tasharofi</td>
<td><strong>Resources, Concurrency, and Local Reasoning</strong>&lt;br&gt;by Peter W. O'Hearn</td>
</tr>
<tr>
<td>09/23</td>
<td>Todd Millstein (UCLA) joint meeting with Compiler Seminar and Trust and Security Seminar</td>
<td><strong>Fine-Grained Access Control with Object-Sensitive Roles</strong>&lt;br&gt;by Jeffrey Fischer, Daniel Marino, Rupak Majumdar and Todd Millstein (ECOOP 2009)</td>
</tr>
<tr>
<td>09/30</td>
<td>Jeff Overbey</td>
<td><strong>Prelim practice talk</strong>&lt;br&gt;New Techniques for the Rapid Construction of Refactoring Engines</td>
</tr>
<tr>
<td>10/07</td>
<td>Fredrik Kjolstad</td>
<td><strong>Refactoring Feature Modules</strong>&lt;br&gt;by Martin Kuhlemann, Don Batory and Sven Apel (ICSR 2009)</td>
</tr>
<tr>
<td>10/14</td>
<td>Milos Gligoric</td>
<td><strong>CodeBricks: Code Fragments as Building Blocks</strong>&lt;br&gt;by Guiseppe Attardi, Antonio Cisternino and Andrew Kennedy (PEPM 2003)</td>
</tr>
<tr>
<td>10/21</td>
<td>Damion Mitchell</td>
<td><strong>The secret life of bugs: Going past the errors and omissions in software repositories</strong>&lt;br&gt;by Jorge Aranda and Gina Venolia (ICSE 2009)</td>
</tr>
<tr>
<td>10/28</td>
<td>George Candea (EPFL)</td>
<td><strong>Deadlock Immunity: Enabling Systems To Defend Against Deadlocks</strong>&lt;br&gt;by Horatiu Jula, Daniel Tralamazza, Cristian Zamfir, George Candea (OSDI 2008)</td>
</tr>
<tr>
<td>Date</td>
<td>Presenter</td>
<td>Topic</td>
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</tr>
<tr>
<td>11/04</td>
<td>Brett Daniel</td>
<td>ReAssert: Suggesting Repairs for Broken Unit Tests by Brett Daniel, Vilas Jagannath, Danny Dig, and Darko Marinov</td>
</tr>
<tr>
<td></td>
<td>Mohsen Vakilian</td>
<td>Inferring Method Effect Summaries for Nested Heap Regions by Mohsen Vakilian, Danny Dig, Robert Bochinno, Jeff Overbey, Vikram Adve, Ralph Johnson</td>
</tr>
<tr>
<td>11/11</td>
<td>Steven Lauterburg</td>
<td>A Framework for State-Space Exploration of Java-based Actor Programs by Steven Lauterburg, Mirco Dotta, Darko Marinov and Gul Agha</td>
</tr>
<tr>
<td></td>
<td>Danny Dig</td>
<td>Inferring Method Effect Summaries for Nested Heap Regions by Mohsen Vakilian, Danny Dig, Robert Bochinno, Jeff Overbey, Vikram Adve, Ralph Johnson</td>
</tr>
<tr>
<td>11/18</td>
<td>Dmytro Suvorov</td>
<td>Faster than C#: efficient implementation of dynamic languages on .NET or this link by Antonio Cuni, Davide Ancona, Armin Rigo (ICOOOLPS 2009)</td>
</tr>
<tr>
<td>12/02</td>
<td>Francesco Sorrentino</td>
<td>Meta-analysis for Atomicity Violations under Nested Locking by Azadeh Farzan, P. Madhusudan and Francesco Sorrentino</td>
</tr>
</tbody>
</table>

**Spring 2009**

In Spring 2009, the seminar was co-organized by Danny Dig

Spring 2009 meetings: 3102 SC, 11:00 am – 12:00 pm on Wednesdays

<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/21</td>
<td>Danny Dig</td>
<td>How We Refactor, and How We Know It by Emerson Murphy-Hill, Chris Parnin, and Andrew P. Black (ICSE 2009)</td>
</tr>
<tr>
<td>01/28</td>
<td>Nick Chen</td>
<td>Holmes: Effective Statistical Debugging via Efficient Path Profiling by Trishul Chilimbi, Ben Liblit, Krishna Mehra, Aditya Nori, Kapil Vaswani (ICSE 2009)</td>
</tr>
<tr>
<td>02/04</td>
<td>Nick Chen</td>
<td>Lessons Learned at 208K: Towards Debugging Millions of Cores by Gregory L. Lee, Dong H. Ahn, Dorian C. Arnold, Bronis R. de Supinski, Matthew Legendre, Barton P. Miller, and Ben Liblit (SC 2008)</td>
</tr>
<tr>
<td>02/18</td>
<td>Lin Tan</td>
<td>Leveraging Code Comments to Improve Software Reliability (practice talk)</td>
</tr>
<tr>
<td>02/25</td>
<td>Munawar Hafiz</td>
<td>Security on Demand (practice talk)</td>
</tr>
<tr>
<td>03/04</td>
<td>Feng Chen</td>
<td>Analyzing Execution Traces for Reliable Software (practice talk)</td>
</tr>
<tr>
<td>03/11</td>
<td>Vilas Jagannath</td>
<td>JavaCOP: Declarative Pluggable Types for Java by Shane Markstrum, Daniel Marino, Matthew Esquivel, Todd Millstein, Chris Andreae, and James Noble (submitted) (SEE EMAIL FOR PAPER)</td>
</tr>
</tbody>
</table>
Fall 2008

Fall 2008 meetings: 4124 SC, 1:00 pm – 2:00 pm on Wednesdays

<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/03</td>
<td>Patrick Meredith</td>
<td>Efficient Monitoring of Parametric Context-Free Patterns by Patrick Meredith, Dongyun Jin, Feng Chen and Grigore Rosu (ASE 2008)</td>
</tr>
<tr>
<td>10/01</td>
<td>Baris Aktemur</td>
<td>Obtaining a staged type system (almost) for free</td>
</tr>
<tr>
<td>10/08</td>
<td>Danny Dig</td>
<td>Concurrency Features in Java</td>
</tr>
<tr>
<td>10/22</td>
<td>Darko Marinov</td>
<td>Duplicate Bug Reports Considered Harmful... Really? by Nicolas Bettenburg, Rahul Premraj, Thomas Zimmermann, Sunghun Kim (ICSM 2008)</td>
</tr>
<tr>
<td>10/29</td>
<td>Gary Sevitsky from IBM Research</td>
<td>Efficient Memory Usage in Java: Current Practices and Challenges</td>
</tr>
<tr>
<td>11/05</td>
<td>OOPSLA attendees</td>
<td>Overview of OOPSLA 2008</td>
</tr>
<tr>
<td>11/12</td>
<td>Yun Young Lee</td>
<td>Reducing wasted development time via continuous testing by David Saff, Michael D. Ernst (ISSRE 2003)</td>
</tr>
</tbody>
</table>
### Spring 2008

In Spring 2008, the seminar was merged with the Formal Methods seminar and co-organized by Madhu Parthasarathy, Grigore Rosu, and Mahesh Viswanathan.  

**Spring 2008 meetings: 4124 SC, 3-4pm on Wednesdays**

<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/25</td>
<td>Robby Findler</td>
<td>DrScheme, why systems building matters</td>
</tr>
<tr>
<td></td>
<td>University of Chicago</td>
<td></td>
</tr>
<tr>
<td>01/30</td>
<td>Shan Lu</td>
<td>Fighting Concurrency Bugs</td>
</tr>
<tr>
<td>02/06</td>
<td>Feng Chen</td>
<td>Monitoring Based Programming and Analysis</td>
</tr>
<tr>
<td>02/13</td>
<td>Joe Tucek</td>
<td>Automatically dealing with failures at the end user site</td>
</tr>
<tr>
<td>02/20</td>
<td>Shobha Vasudevan</td>
<td>Informal Tutorial on Hardware Verification</td>
</tr>
<tr>
<td>02/27</td>
<td>Brett Daniel</td>
<td>Mirrors: Design Principles for Meta-level Facilities of Object-Oriented Programming Languages by Gilad Bracha and David Ungar (OOPSLA '04)</td>
</tr>
<tr>
<td>03/05</td>
<td>Justin King</td>
<td>Towards a Taxonomy of Software Change</td>
</tr>
<tr>
<td>03/12</td>
<td>Sameer Sundresh</td>
<td>Language-level virtualization</td>
</tr>
<tr>
<td>03/26</td>
<td>Gennaro Parlato</td>
<td>Context-Bounded Analysis of Concurrent Queue Systems by Salvatore La Torre, P. Madhusudan, and Gennaro Parlato (TACAS 2008)</td>
</tr>
<tr>
<td>04/02</td>
<td>Ahmed Sobeih</td>
<td>Verification of Evolving Simulation Models of Network Protocols Using Incremental State Space Exploration</td>
</tr>
<tr>
<td>04/09</td>
<td>Joe Hendrix</td>
<td>What Did I Forget? - Decision Procedures for Identifying Incomplete Specifications</td>
</tr>
<tr>
<td>04/16</td>
<td>Mohsen Vakilian</td>
<td>Change Distilling: Tree Differencing for Fine-Grained Source Code Change Extraction by Beat Fluri, Michael Wuersch, Martin Pinzger, and Harald C. Gall (TSE 2007)</td>
</tr>
<tr>
<td>04/23</td>
<td>Steven Lauterburg</td>
<td>Incremental State-Space Exploration for Programs with Dynamically Allocated Data by Steven Lauterburg, Ahmed Sobeih, Darko Marinov, Mahesh Viswanathan (ICSE 2008)</td>
</tr>
</tbody>
</table>
## Fall 2007

Fall 2007 meetings: 4124 SC, 2:00 pm – 3:00 pm on Fridays

<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/31</td>
<td>Brett Daniel</td>
<td>Automated Testing of Refactoring Engines</td>
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<tr>
<td></td>
<td></td>
<td>B. Daniel, D. Dig, K. Garcia, and D. Marinov</td>
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<tr>
<td></td>
<td></td>
<td>(ESEC/FSE 2007)</td>
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<tr>
<td>09/07</td>
<td>writer's workshop</td>
<td>ReBA: Refactoring-aware Binary Adapter for Component-based Applications</td>
</tr>
<tr>
<td></td>
<td>(read &amp; annotate paper before coming)</td>
<td>D. Dig, S. Negara, V. Mohindra, and R. Johnson (to be submitted to ICSE 2008)</td>
</tr>
<tr>
<td>09/14</td>
<td>Binh Le</td>
<td>Beyond Refactoring: A Framework for Modular Maintenance of Crosscutting Design Idioms</td>
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<td></td>
<td></td>
<td>Macneil Shonle, William G. Griswold, and Sorin Lerner (ESEC/FSE 2007)</td>
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<tr>
<td>09/28</td>
<td>Danny Dig</td>
<td>Automated Upgrade of Component-Based Applications</td>
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<td></td>
<td>(practice talk for PhD defense)</td>
<td>suggested reading: ReBA: Refactoring-</td>
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<tr>
<td></td>
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<td>aware Binary Adapter for Component-based Applications</td>
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<tr>
<td>10/05</td>
<td>Justin King</td>
<td>The NMI Build &amp; Test Laboratory: Continuous Integration Framework for Distributed Computing Software</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. Pavlo, P. Couvares, R. Gietzel, A. Karp, I. Alderman, M. Livny, and C. Bacon (LISA '06)</td>
</tr>
<tr>
<td>10/12</td>
<td>Tanya Crenshaw</td>
<td>Estimating Software Component Reliability by Leveraging Architectural Models</td>
</tr>
<tr>
<td></td>
<td></td>
<td>by Roshanak Roshandel, Somo Banerjee, Leslie Cheung, Nenad Medvidovic, Leana Golubchik (ICSE 2006)</td>
</tr>
<tr>
<td>10/19</td>
<td>Baris Aktemur</td>
<td>Library Specialization Problem</td>
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<td></td>
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<td>(work in progress)</td>
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<tr>
<td>10/26</td>
<td>Steven Lauterburg</td>
<td>Iterative Context Bounding for Systematic Testing of Multithreaded Programs</td>
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<tr>
<td></td>
<td></td>
<td>by Madan Musuvathi and Shaz Qadeer (PLDI '07)</td>
</tr>
<tr>
<td>11/02</td>
<td>Mohsen Vakilian</td>
<td>Aligning Development Tools with the Way Programmers Think About Code Changes</td>
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<tr>
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<td>by Marat Boshernitsan, Susan L. Graham, and Marti A. Hearst (CHI 2007)</td>
</tr>
<tr>
<td>11/09</td>
<td>Vilas Shekhar Bangalore Jagannath</td>
<td>Context-Based Detection of Clone-Related Bugs</td>
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<td></td>
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<td>by Lingxiao Jiang, Zhendong Su and Edwin Chiu (ESEC/FSE 2007)</td>
</tr>
<tr>
<td>11/16</td>
<td>Roshanak Zilouchian</td>
<td>Heuristic Ranking of Java Program Edits for Fault Localization</td>
</tr>
<tr>
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<td>by Xiaoxia Ren and Barbara G. Ryder (ISSTA'07)</td>
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<tr>
<td>11/30</td>
<td>Choonghwan Lee</td>
<td>Practical Memory Leak Detection using Guarded Value-Flow Analysis</td>
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<td>by Sigmund Cherem, Lonnie Princehouse and Radu Rugina (PLDI'07)</td>
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<tr>
<td>12/06</td>
<td>Marat Boshernitsan</td>
<td>Trends and Techniques in Unit Testing: From Daikon to Agitator and Beyond</td>
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## Spring 2007

Spring 2007 meetings: 4124 SC, 1:00 – 2:00 pm on Fridays

<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/02</td>
<td>Ralph Johnson</td>
<td>Semantic patches for documenting and automating collateral evolutions in Linux device drivers Y. Padoleau, R. Hansen, J. Lawall, and G. Muller (PLOS 2006)</td>
</tr>
<tr>
<td>02/09</td>
<td>Darko Marinov</td>
<td>Writing Good Software Engineering Research Papers Mary Shaw (ICSE 2003)</td>
</tr>
<tr>
<td>02/16</td>
<td>Danny Dig</td>
<td>Refactoring-aware Configuration Management for Object-Oriented Programs D. Dig, K. Manzoor, R. Johnson, T. Nguyen (ICSE 2007)</td>
</tr>
<tr>
<td>02/23</td>
<td>Justin King</td>
<td>Parallel Randomized State-space Search Matthew B. Dwyer, Sebastian Elbaum, Suzette Person, Rahul Purandare (ICSE 2007)</td>
</tr>
<tr>
<td>03/02</td>
<td>Chao Liu</td>
<td>SOBER: Statistical Model-based Bug Localization Chao Liu, Xifeng Yan, Long Fei, Jiawei Han and Samuel Midkiff (FSE 2005)</td>
</tr>
<tr>
<td>03/30</td>
<td>Vilas Shekhar Bangalore Jagannath</td>
<td>Wrapper-Based Evolution of Legacy Information Systems Philippe Thiran, Jean-Luc Hainaut, Geert-Jan Houben, Djamal Benslimane (TOSEM October 2006)</td>
</tr>
<tr>
<td>04/13</td>
<td>Brett Daniel</td>
<td>The Design and Implementation of Hierarchical Software Systems with Reusable Components Don Batory and Sean O'Malley (TOSEM 1992)</td>
</tr>
<tr>
<td>04/20</td>
<td>Haoran Yi</td>
<td>Metrics and Laws of Software Evolution The Nineties View M.M. Lehman, J.F. Ramil, P.D. Wernick, D. E. Perry Evolution in Open Source Software: A Case Study Michael W. Godfrey, Qiang Tu</td>
</tr>
<tr>
<td>04/27</td>
<td>Kely Garcia</td>
<td>Time Aware Test Suite Prioritization Kristen R. Walcott, Mary Lou Soffa, Gregory M. Kapfhammer and Robert S. Roos (ISSTA 2006)</td>
</tr>
<tr>
<td>05/11</td>
<td>Choonghwan Lee</td>
<td>Using Model Checking to Find Serious File System Errors Junfeng Yang, Paul Twohey, Dawson Engler, Madanlal Musuvathi (OSDI 2004)</td>
</tr>
</tbody>
</table>