

SPACE 2006 Program

SPACE 2006 Workshop Organisation iv

Welcome: (8:45–9:00)

Session 1: (9:00–10:15)

- **Invited talk: Using Static Analysis for Memory Error Detection and Memory Reclamation** 1
Radu Rugina
- **Asserting Memory Shape using Linear Logic** 2
Frances Spalding and Limin Jia

Coffee Break: (10:15–10:45)

Session 2: (10:45–12:00)

- **Bunching for Region and Location Models** 14
Matthew Collinson and David Pym
- **Compiler-Directed Automatic Memory Management** 23
Florian Liekweg
- **Writing practical memory management code with a strictly typed assembly language** 35
Toshiyuki Maeda and Akinori Yonezawa

Lunch Break: (12:00–14:00)

Session 3: (14:00–15:15)

- **Inferring Invariants in Separation Logic for Imperative List-processing Programs** 47
Stephen Magill, Aleksandar Nanevski, Edmund Clarke, and Peter Lee
- **Verification of the Heap Manager of an Operating System using Separation Logic** 61
Nicolas Marti, Reynald Affeldt, and Akinori Yonezawa
- **Separation Logic for a Higher-Order Typed Language** 73
Neelakantan Krishnaswami

Coffee Break: (15:15–15:45)

Session 4: (15:45–16:55)

- **Garbage Collection for Trailer Arrays** 83
Laura Effinger-Dean, Chris Erickson, Melissa O’Neill, and Darren Strash
- **Extending Garbage Collection to Complex Data Structures** 91
Laura Effinger Dean, Chris Erickson, Melissa O’Neill, and Darren Strash
- **Short Presentation: Static Verification of Global Heap References in Java Native Libraries** 98
Andreas Krall
- **Short Presentation: Verifying Data-Parallel Programs with Separation Logic** 101
Susumu Nishimura

Coffee Break: (16:55–17:10)

Session 5: (17:10–18:00)

- **Short Presentation: Linear Types for Aliased Resources** 105
Chris Hawblitzel
- **Short Presentation: Abstracting Allocation: The New new Thing** 108
Nick Benton and Noah Torp-Smith
- **5-minute madness talks**