

# Consistency in Distributed Systems

## Tentative Schedule

### Monday (February 18, 2013)

- Session 1 (9am – 10:30am)
  - Introduction (to the seminar) and overview
  - Marcos Aguilera: Tutorial on Geo-Replication
- Coffee Break (10:30am – 11am)
- Session 2 (11am – 12)
  - Doug Terry, Cloud Storage Consistency Explained Through Baseball
  - Rodrigo Rodrigues, Making Geo-Replicated Systems Fast as Possible, Consistent when Necessary
- Lunch (12 – 2pm)
- Session 3 (2pm – 3pm)
  - Alan Fekete, Tutorial on Database Consistency
- Coffee Break (3pm – 3:30pm)
- Session 4 (3:30pm – 5pm)
  - Sebastian Burckhardt, Cloud Types and Revision Consistency
  - Alexey Gotsman, Semantics of Eventually Consistent Systems
  - Bettina Kemme, Quantifying Consistency

---

---

### Tuesday (February 19, 2013)

- Session 1 (9am – 10:30am)
  - Marcos K. Aguilera , The Emperor's New Consistency: the Case Against Weak Consistency in Data Centers
  - Alan Fekete, HAT not CAP: Highly Available Transactions
  - David Lomet, Scalable Transactional Consistency for Your Cloud Data
- Coffee Break (10:30am – 11am)
- Session 2 (11am – 12)
  - Marc Shapiro, Conflict-free Replicated Data Types: Principles, Examples and Lessons
  - Carlos Baquero, Composing Lattices and CRDTs
- Lunch (12 – 2pm)
- Session 3 (2:00pm – 3:35pm)
  - Nuno Preguica, Swiftcloud: geo-replication all the way to the edge
  - Annette Bieniusa, Applications for geo-replicated systems - Where are the limits?
  - Alexander A. Shvartsman, Specifying, Reasoning About, Optimizing, and Implementing Atomic Data Services for Distributed Systems
  - Breakout 1: 5-minute overview
- Coffee Break (3:35pm – 4:00pm)
- Session 4 (4:00pm – 5:30pm)
  - Breakout Session 1 (4 groups in parallel): 4:00pm to 5:00pm
  - Summary & Discussion: 5:00pm to 5:30pm

Wednesday (February 20, 2013)

- Session 1 (9am – 10:30am)
    - Douglas B. Terry, Snapshot Isolation with Eventual Consistency
    - Luis Rodrigues, ChainReaction: a Causal+ Consistent Datastore based on Chain Replication
    - Amr El-Abbadi, Consistently Spanning the Globe for Fault-tolerance
  - Coffee Break (10:30am – 11am)
  - Session 2 (11am – 12)
    - Kaushik Rajan, Consistency+Resiliency Via Generalized Lattice Agreement
    - Liuba Shrira, ACID Transactions and Modularity in Distributed Systems
  - Lunch (12 – 2pm)
  - Afternoon + Evening: Some outing, to be planned
- 

Thursday (February 21, 2013)

- Session 1 (9am – 10:00am)
    - Maged M. Michael, Conditions for Strong Synchronization in Concurrent Data Types
    - Maurice Herlihy, On the Nature of Progress
  - Coffee Break (10:00am – 11am)
  - Session 2 (11am – 12)
    - Mooly Sagiv, Concurrent Data Representation Synthesis
    - Peter Van Roy, Challenges for network-transparent programming languages
  - Lunch (12 – 2pm)
  - Session 3 (2:00pm – 3:30pm)
    - Breakout Session 2 (2pm to 3pm)
    - Summary & Discussion (3pm to 3:30pm)
  - Coffee Break (3:30pm – 4:00pm)
  - Session 4 (4:00pm – 5pm)
    - Jennifer L. Welch, Time Bounds for Shared Objects in Partially Synchronous Systems
    - Hagit Attiya, Reduction Theorems for Proving Serializability and an Application to RCU-Based Synchronization
- 

Friday (February 22, 2013)

- Session 1 (9am – 10:00am)
  - Noam Rinetzky, Abstractions for Transactional Memory
  - G. Ramalingam, Language Abstractions: Idempotence, Compensations, and Workflows
- Coffee Break (10:00am – 10:30am)
- Session 2 (10:30am – 11:30am)
  - Alejandro Buchmann
  - Summary & Discussion
- Lunch (12 – 2pm)
- Post-lunch: Departure