

Software-Engineering Seminar, Summer 2017

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Goals

- Learn an interesting topic in SE
- Read and understand scientific papers explaining the topic
- Learn how to present the topic

Your tasks

You get one topic based on an existing paper from a good conference or journal.

- Read and understand the paper
- Search for additional material on the topic
- Write a paper
 - Language: English
 - 10-15 pages, LNCS template
 - Easy to read for average master student
 - Present the problem and motivation of the work
 - Present the solution
 - You may add critique
- Presentation
 - 20-30 minutes presentation
 - about 10 minutes discussion and questions (know your topic!)

How to fail a seminar?

- Plagiarism
- Late submissions
- Not attending final presentations
- Poorly written paper
 - Fail to convey the concepts
 - Incomprehensible English
- Bad presentation
 - Fail to convey the concepts
 - Unable to answer any questions
- Never talk to your supervisor
- Do not use a spell checker

Schedule

- May 5th: Submit an extended abstract (3-5 pages)
- June 5th: Submit first draft of the paper (10-15 pages)
- 9 June, 23 June, 30 June, 7 July : Presentations
 - 3 presentations per day
- July 19th: Submit final version of paper (10-15 pages)

All deadlines: End of the day 23:59.

Submissions: As pdfs by email to your supervisor and coordinator

Presentation Schedule

- Day 1 (June 9)
 - 1 Paxos (Albert Schimpf)
 - 2 Distributed Snapshots (Ala Harirchi)
 - 3 Highly Available Transactions (Samkit Shah)
- Day 2 (June 23)
 - 1 Raft (Ivica Stanimirovic)
 - 2 Practical Byzantine Fault Tolerance (Stafania Saju)
 - 3 Chain reaction: Causal+consistent data store (Hossein Meraji)
- Day 3 (June 30)
 - 1 ZooKeeper: Wait-free coordination for Internet-scale systems (Hlib Babii)
 - 2 Consistency Rationing in the Cloud (Nishith Rajyaguru)
 - 3 The Potential Dangers of Causal Consistency and an Explicit Solution
- Day 4 (July 7)
 - 1 Spanner: Google's Globally-Distributed Database
 - 2 Quantifying eventual consistency with Probabilistic Bounded Staleness (Sina Kordestanchi)
 - 3 Incremental Consistency Guarantees for Replicated Objects (Maximilian Kohl)

Additional Reading

Distributed Systems

- Distributed systems for fun and profit, Mikito Takada
- Replication: Theory and Practice, Charron-Bost et.al

Writing and Presentation

- See seminar website