Algorithms for Distributed Systems

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Join one of the groups for project A and B to investigate the details of the denoted algorithm described in the accompanying paper handout. Distribute work such that each group member receives her fair share of the total work.

The deliverables of the project consist of

1. a 45 minutes (slide-based) presentation with handouts for the audience consisting of
2. a presentation of the algorithmic ideas and some key invariants,
3. a formalization of the presented algorithm by an I/O automaton,
4. an implementation of the presented algorithm in DAJ using a suitable demonstration driver (no online demonstration is required).
5. A Web page shall be developed that integrates and presents all materials in a nice way (using some text, graphics, ...).

Both presentations will take place on **February 2, 8:15** by some member(s) of each group; all group members have to be present.

(As for grading, you may either present the deliverable as the result of the whole group or explicly denote the author of each individual contribution.)

A: Voting Algorithm for Mutual Exclusion

Investigate Maekawa's voting algorithm for mutual exclusion; modify it such that it grants mutual exclusion in spite of a singlle processor failure (hint: think about composing coteries).

B: Invitation Algorithm for Leader Election

Investigate the invitation algorithm for leader election.