



Computer Architecture I - WS 03/04
Topics for the exam

1. Subtraction algorithm
2. Parallel prefix, CLA
3. Booth recoding
4. Asymptotic area and delay of (n,n)- additional array and tree
5. Delayed branch = Delayed PC
6. Simulation theorem for the machine with Pipelining (without Forwarding and Interrupts)
7. Construction of special purpose register file
8. Sequential definition of JISR-signal and its effect
9. Stall/forwarding engine with delay $O(\log k)$, where k is a number of pipelined stages
10. LRU
11. Speculative fetch:
instruction I_i modifies I_x , which have been already fetched, i.e. $I_x \text{stack-tl} \in \{I_{i+1}, I_{i+2}, I_{i+3}\}$;
starting new I_x