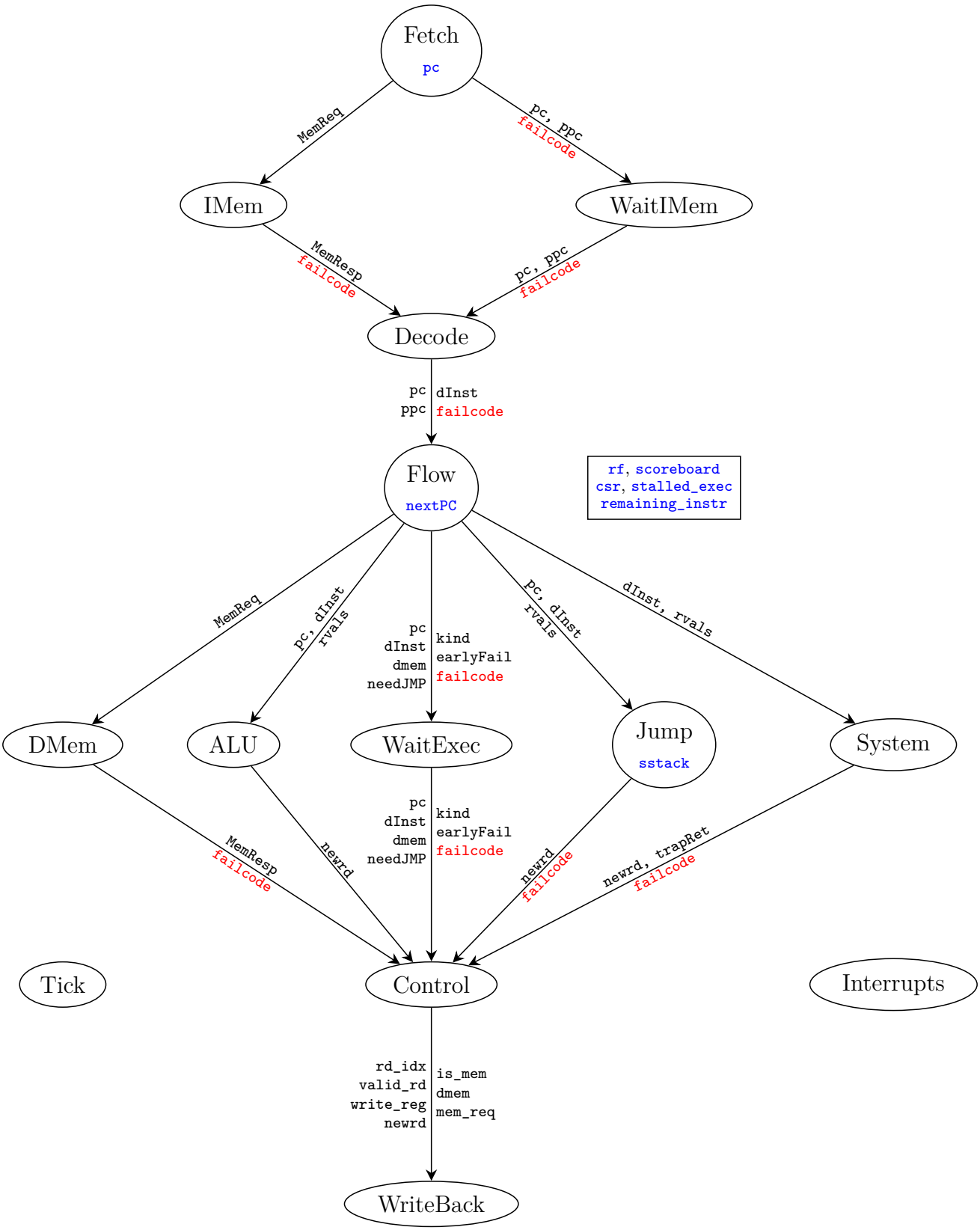
Fetch
pc
MemReq
pc, ppc
failcode
IMem
WaitIMem
MemResp
failcode
pc, ppc
failcode
Decode
pc
ppc
dInst
failcode
Flow
nextPC
rf, scoreboard
csr, stalled_exec
remaining_instr
MemReq
pc, dInst
rvals
pc
dInst
dmem
needJMP
kind
earlyFail
failcode
pc, dInst
rvals
dInst, rvals
DMem
ALU
WaitExec
Jump
sstack
System
MemResp
failcode
newrd
pc
dInst
dmem
needJMP
kind
earlyFail
failcode
newrd
failcode
newrd, trapRet
failcode
Tick
Control
Interrupts
rd_idx
valid_rd
write_reg
newrd
is_mem
dmem
mem_req
WriteBack