

Quiz 1: uninitialized queues

The algorithm assumes that the queue is initialized to (winner, loser).

- Can we solve consensus using (initially) empty queues?

Quiz 2: consensus power

1. Show that T&S has **consensus power at most 2**, i.e., it cannot be, combined with atomic registers, used to solve 3-process consensus

Possible outline:

- Consider the *critical bivalent* run R of A: every one-step extension of R is univalent (show first that it exists)
- Show that all steps enabled at R are on the same T&S object
- Show that there are two extensions of opposite valences that some process cannot distinguish

2. Show that specification 1 of key-value stores (slide 46 in class04) has infinite consensus power.