

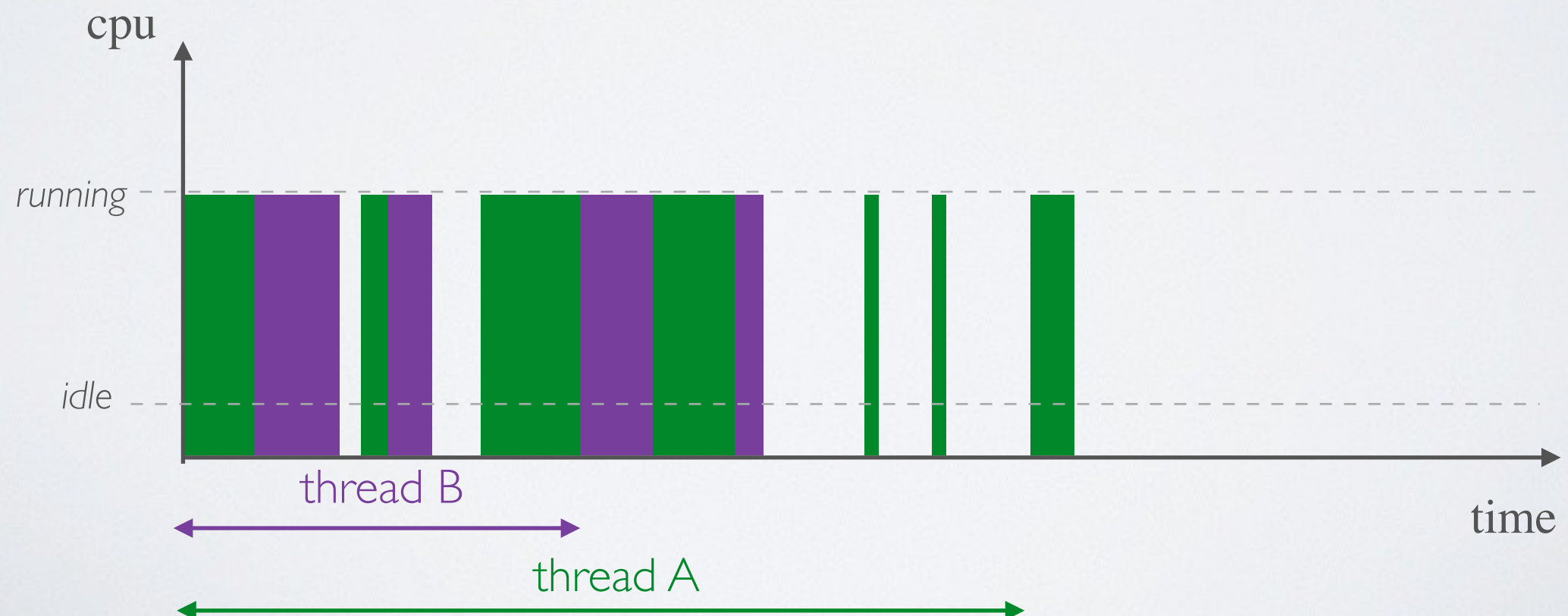
Running threads concurrently

A CPU core will run multiple thread concurrently by running each thread for a little amount of time before switching to another one

→ Limited Direct Execution

The CPU will switch to another thread when either

- the running thread yields the CPU (non-blocking IO for instance)
- or the CPU stops the running thread (system clock interrupt)



The advantages of concurrency

- ✓ **From the system perspective**

better CPU usage resulting in a faster execution overall
(but not individually)

- ✓ **From the user perspective**

programs seem to be executed in parallel

➔ It requires **some mechanisms to manage and schedule** these concurrent threads