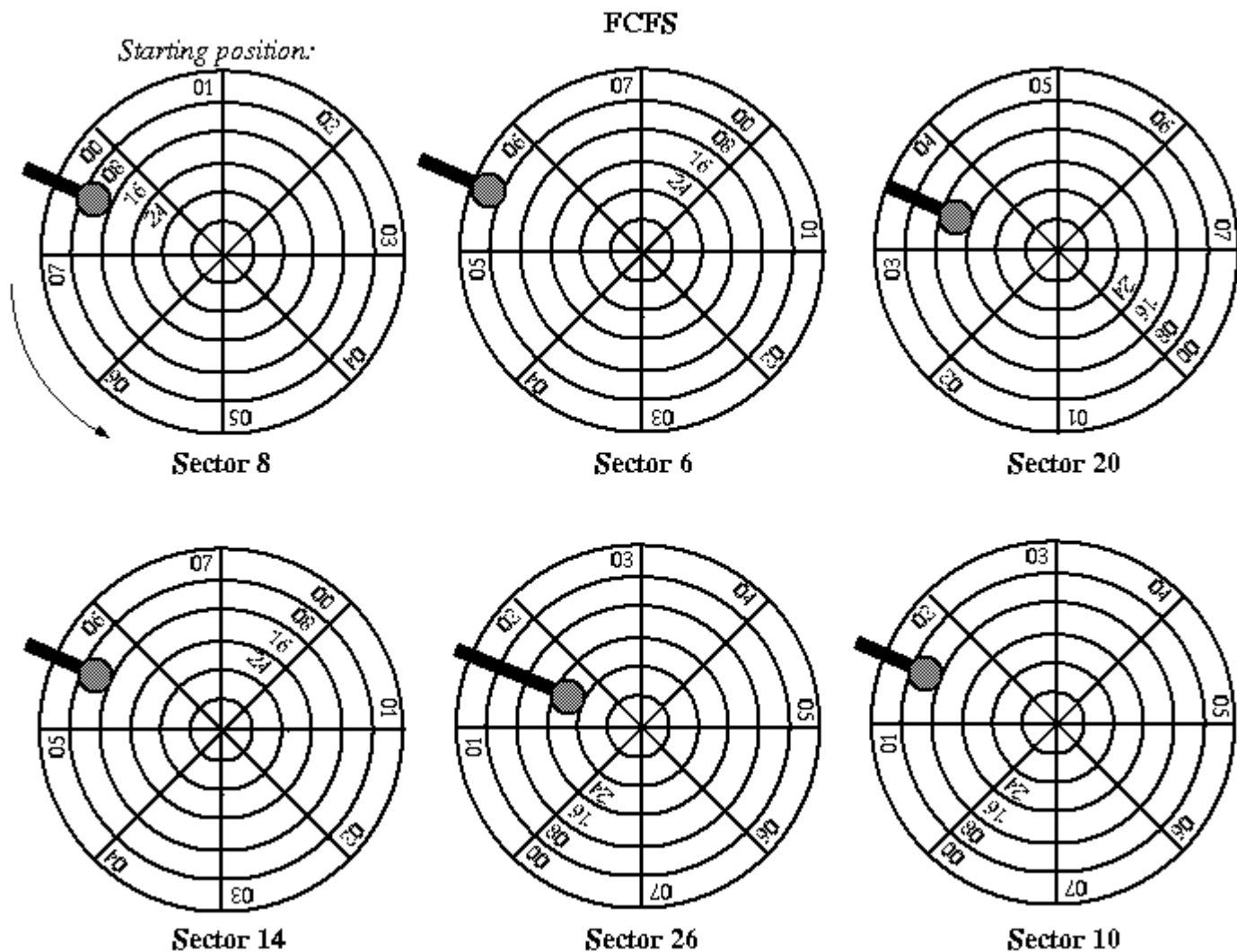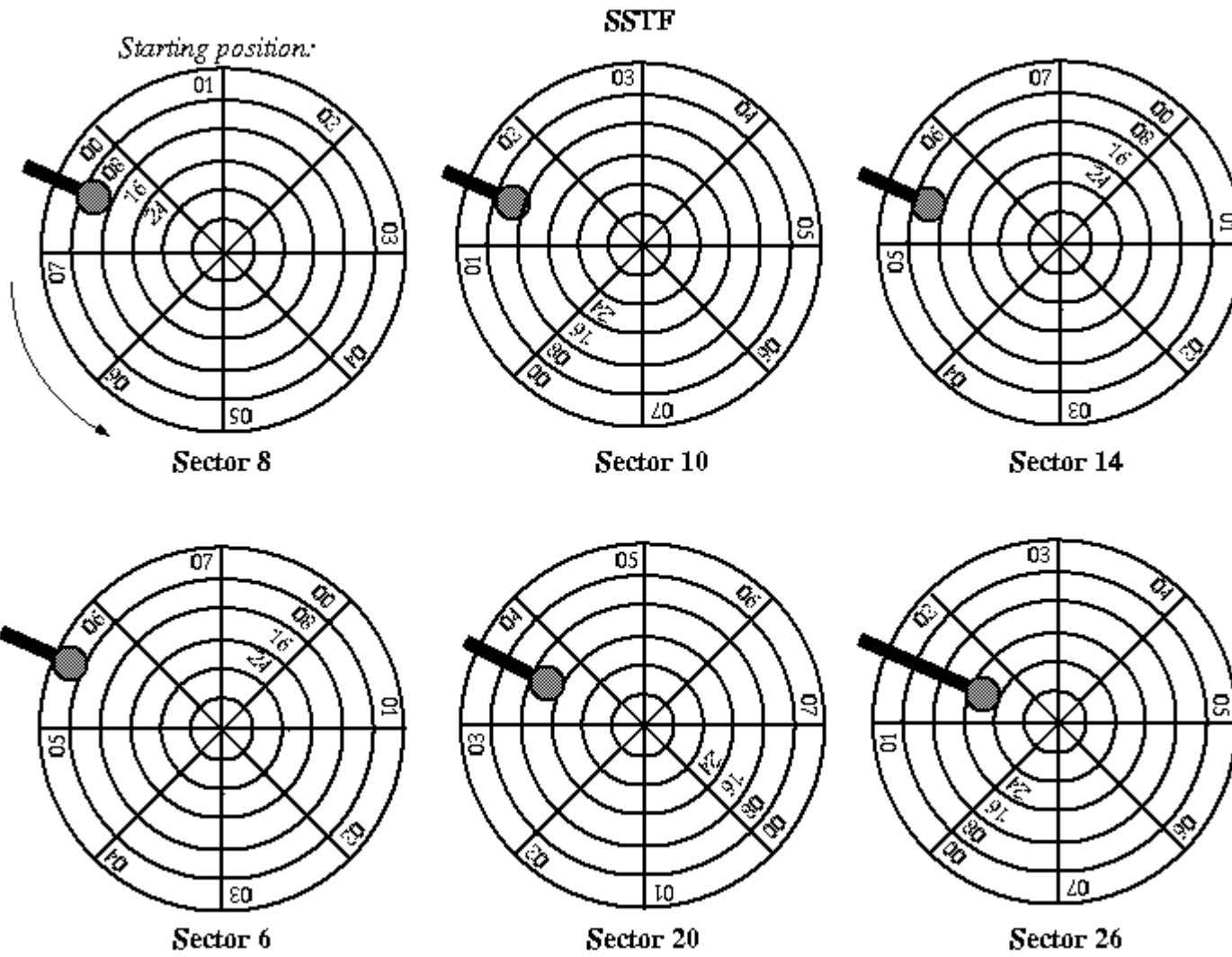# CS 537 Notes, Section #28: Disk Scheduling

Disk scheduling: in a system with many processes running, it can often be the case that there are several disk I/O's requested at the same time. The order in which the requests are serviced may have a strong effect on the overall performance of the disk.
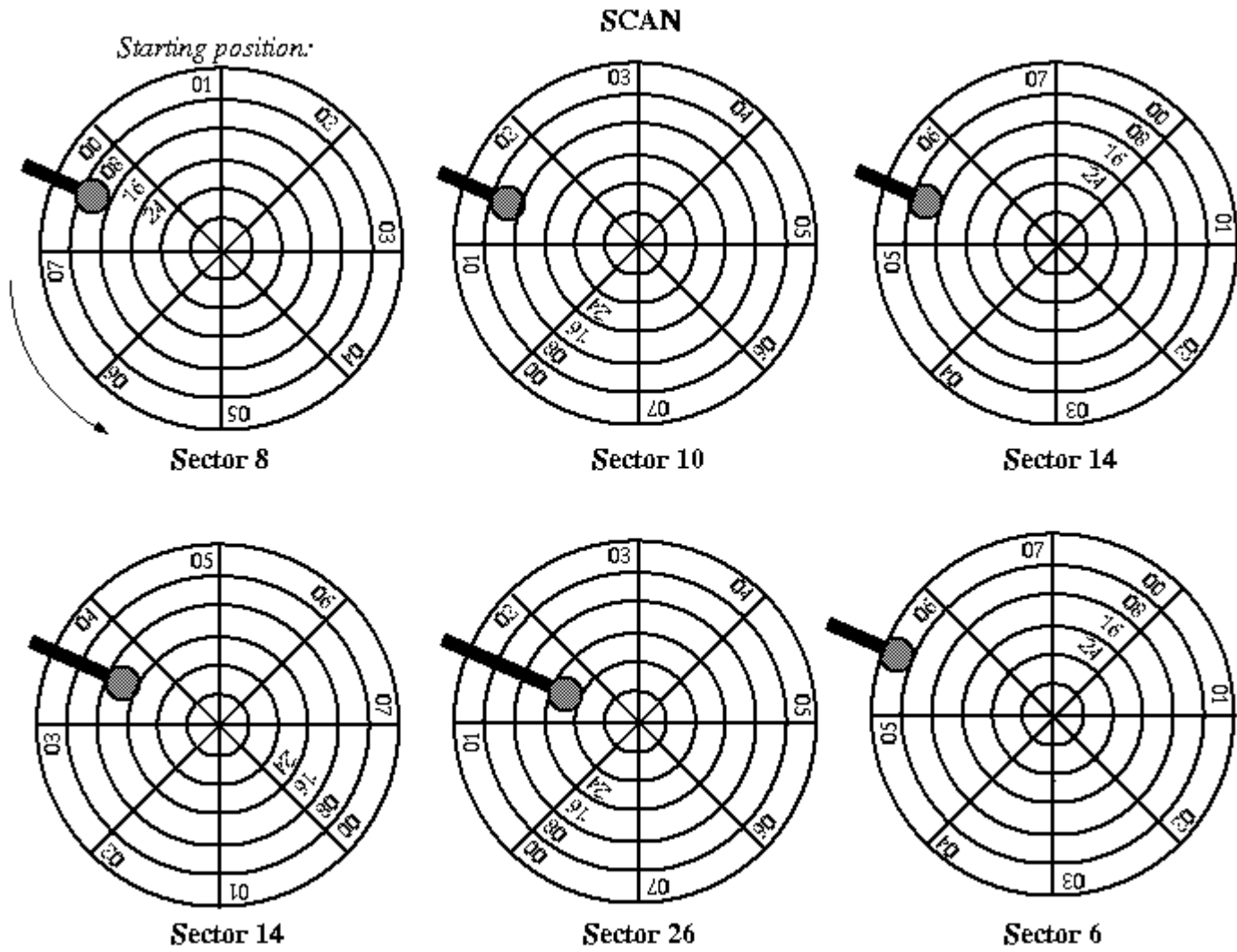
First come first served (FIFO, FCFS): may result in a lot of unnecessary disk arm motion under heavy loads.

Shortest seek time first (SSTF): handle nearest request first. This can reduce arm movement and result in greater overall disk efficiency, but some requests may have to wait a long time.

SSTF

Starting position:

Sector 8

Sector 10

Sector 14

Sector 6

Sector 20

Sector 26

Scan: like an elevator. Move arm back and forth, handling requests as they are passed. This algorithm does not get hung up in any one place for very long. It works well under heavy load, but not as well in the middle (about 1/2 the time it will not get the shortest seek).

SCAN

Starting position:

Sector 8

Sector 10

Sector 14

Sector 14

Sector 26

Sector 6