

## Notation for Queueing Models (Kendall)

### A/B/n/p/k

- **A** refers to the **arrival process**.  
**Assumption:** IID interarrival times.  
 Interarrival time distribution:
  - M = exponential (memoryless)
  - D = deterministic
  - G = general
- **B** refers to **service times**.  
**Assumption:** IID service times.  
 Service time distribution:
  - M = exponential (memoryless)
  - D = deterministic
  - G = general
- **n** = nr of (parallel) servers
- **p** = nr of system places  
 = nr of servers + waiting places
- **k** = size of customer population
- Default values (usually omitted):
  - $p = \infty, k = \infty$
- Examples:
  - M/M/1
  - M/D/1
  - M/G/1
  - G/G/1
  - M/M/n
  - M/M/n/n+m
  - M/M/∞ (Poisson model)
  - M/M/n/n (Erlang model)
  - M/M/k/k/k (Binomial model)
  - M/M/n/n/k (Engset model,  $n < k$ )

IID = independently and identically distributed