



## Kendall's Notation for Queueing and Loss Models

kendall.ppt

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Kendall's Notation for Queueing and Loss Models

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

- $A$  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/ $\infty$  (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

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