

Index

Numbers corresponding to an entry refer to the page numbers where the particular entry is defined. Only the salient entries for a particular item are listed.

| Symbols | |
|------------------------------|-----------------------|
| 65-byte | |
| problem | 206, 212, 218, 313 |
| solution | 212 |
| A | |
| admissible | 95, 328 |
| IID | 328 |
| adversary | 206 |
| adversary obfuscation | 300, 313 |
| algorithm | |
| caching | 28 |
| load balancing | 17, 28 |
| randomized | 135 |
| time reservation | 97 |
| arbitration | <i>see</i> scheduling |
| ASIC | 3 |
| ATM | 5 |
| B | |
| batch scheduling | 114 |
| buffer | 5, 183 |
| packet | 183 |
| buffered crossbar | 25, 124, 335, 345 |
| buffering | |
| double | 295 |
| localized | 25, 89 |
| C | |
| cache | 18 |
| benefits | 212 |
| buffered crossbar | 25, 124 |
| buffered pps | 25, 164 |
| L1 | 313 |
| L2 | 313 |
| memory | 17 |
| packet buffer | 26, 190 |
| packet buffer pipelined | 26, 204 |
| scheduler | 26, 238, 244 |
| piggyback | 246 |
| statistics counter | 26, 269 |
| CAM | 22 |
| CIOQ | 10, 41, 93, 124 |
| CMA | 270 |
| CMOS | 6 |
| combined input-output queued | 10 |
| constraint set | 17, 40 |
| extended | 46, 115 |
| cost | |
| savings | |
| memory | 212 |
| counter | |
| count | 272 |
| empty | 272 |
| CPA | 156 |
| critical queue | 207 |
| crosspoint | 124 |
| D | |
| DDoS | 206 |
| DDR | 8 |
| deficit | 198 |
| maximum total | 200, 207 |
| real | 209 |
| total | 200 |
| demultiplexor | 149, 159 |
| departure time | 13, 14, 154 |
| difference equation | 19, 362 |
| Diophantine | 301 |
| even | 301 |
| distributed shared memory | 24 |
| domination | 369 |
| double buffering | 295 |
| DPA | 171 |
| DRR | 14, 230 |
| DSM | 24, 46 |
| DWDM | 145 |
| E | |
| ECQF | 214 |
| emulate | 19 |
| Ethernet | 5 |
| F | |
| FIFO | 15 |
| frame scheduling | 82, 113, 381 |

- G**
- generalized ping-pong 296
 - GPP-SMA 296
 - GPS 14, 230
 - graph 70
 - bipartite 70
 - request 71
- H**
- HoL 94
- I**
- induction
 - simple 109
 - input queued 9
 - inter-processor communication 212
 - Internet service provider 289
 - IQ 9
 - ISP 289
- L**
- LAN 90
 - LCF 271
 - Lyapunov function 19, 43, 276
- M**
- MAC 222
 - marriage
 - arranged 112
 - forced 112
 - preferred 104, 112
 - stable 105, 110
 - matching
 - critical maximum size 114
 - maximal 114
 - maximum size 113
 - maximum weight 113
 - MDQF 198
 - MDQFP 205
 - memory
 - access pattern 26
 - access time 4, 324
 - bandwidth 4, 27, 323
 - capacity 5, 323
 - commodity 5
 - data structures 26, 300
 - departure time 25
 - distributed 24, 67
 - distributed shared 24, 46
 - DRAM 6
 - eDRAM 25
 - FCRAM 8
 - latency 8, 26, 212, 323
 - limited 24
 - localized 25, 93, 124
 - parallel distributed 25, 46, 77
 - RDRAM 8
 - RLDRAM 8
 - SDRAM 293
 - shared 24, 48
 - slow 25
 - SRAM 6
 - mimic 19
 - MMA 209
 - multicast 372
 - copy 373
 - fanout 374
 - multiplexor 149
- N**
- network
 - Batcher-banyan 11
 - Benes 11
 - Clos 11, 148
 - buffered 43
 - re-arrangeable 159
 - strictly non-blocking 158
 - Hypercube 11
- O**
- OQ 6
 - output queued 6
- P**
- parallel distributed shared memory 25, 46
 - parallel packet switch 25
 - parallel shared memory 24, 46, 48
 - PDSM 25, 46, 77
 - permutation 93, 165
 - conflict-free 58
 - matrix 331
 - PIFO 14, 53
 - pigeonhole principle 39, 47
 - extending 107
 - ping-pong 295
 - generalized 296, 298

- pipeline 26, 194, 204
 PIRO 106
 policing 23, 26, 265, 287
 power 21, 78
 worst-case 212
 PPS 25, 46, 151
 PSM 24, 46, 48
- Q**
- QDR-SRAM 212, 238, 280, 293
 QoS 14
 queue
 FIFO 15
 PIFO 14, 53
 PIRO 106
 strict priority 14, 230
 super 135
 virtual output 10, 113, 135
- R**
- router
 buffered crossbar 25, 124, 335, 345
 buffered pps 25, 164
 centralized shared memory 4
 combined input-output queued 10, 41, 93
 buffered 124
 crossbar 93
 distributed shared 67
 bus-based 67
 crossbar-based 67
 distributed shared memory 24, 46
 DSM 67
 input queued 9
 output queued 6
 parallel distributed shared 77
 crossbar-based 77
 parallel distributed shared memory 25, 46
 parallel packet switch 25, 46, 151
 parallel shared memory 24, 46, 48
 single-buffered 23
 deterministic 42
- S**
- randomized 42
 SOHO 90
 RTT 5, 183
- S**
- SB 23, 42
 scheduler 229
 scheduling
 batch 114
 frame 82, 113, 381
 serdes 212
 shaping 13, 23, 265
 single-buffered 23, 42
 SOHO 90
 speedup 11
 crossbar 93
 link 153, 372
 state management 26, 296
- T**
- TCP 5, 184
 test
 bake-off 206
 throughput
 100% 10, 43, 92, 113, 124, 135, 329, 335
 time slot 4, 153, 191, 240, 271, 377
 internal 153
 traffic
 admissible 95, 328
 concentration 152
 leaky bucket constrained 13
 single leaky bucket constrained 95
- V**
- VOQ 10, 113, 135
- W**
- WAN 90
 WDM 145
 WF²Q 14, 230
 work-conserving 13, 115, 130, 159

