

## INDEX

- Adapted shift equivalence 77
- Almost topological conjugacy 69-71
- Amalgamation matrix 64
- Automorphism 2
- Basic identities (entropy, information)  
 7, 8
- Bernoulli  
     process, shift 5  
     measure 5
- Block-code (homomorphism)  
 11, 54-63  
     bounded-to-one 55-59
- Block isomorphism 11, 54-63
- Bounded codes 35-37
- Bowen-Franks invariants 88
- Central limiting distributions 36
- Coboundary 13, 14
- Cocycle-coboundary equation 14, 34
- Code  
     block 11, 54  
     finitary 11, 38
- Code-length 50  
     future 50
- Cohomologous 13, 14
- Communication system (of Shannon) 91
- Cylinder 3
- Division matrix 64
- Endomorphism 2
- Entropy 7-10  
     conditional 7  
     of endomorphism 9  
     topological 23
- Ergodic 2
- Exhaustive  $\sigma$ -algebra 3
- Extension 2, 3  
     natural 3
- Factor 2, 3
- Filler 42  
     entropy 42  
     measure 42  
     set 42
- Finitary code (homomorphism) 11, 38  
     isomorphism 38-53
- Finite equivalence 64-71
- First Čech cohomology group 60-63
- Flow equivalence 86-89
- Furstenberg's lemma 66
- Generator 3  
     Markov 72  
     strong 3  
     topological 72
- Herglotz's theorem 16

- Homomorphism 2, 3
  - block 11, 54
  - finitary 11, 38
- Information 7-10
  - conditional 7
- Information cocycle 13
  - centralised 18
- Information variance 18
- Isomorphism 2, 3
  - finitary 11, 38-53
  - quasi-regular 11, 33-37
  - regular 11-31
- $\Lambda$ -invariant 26-30
- Lebesgue space 2
- Marker method 38-49
- Markov chain, 4, 5
  - aperiodic 4-6
  - irreducible 4
  - period of 4-6
- Markov
  - process, shift 5
  - measure 5
- Measure of maximal type 23, 90-95
- Perron-Frobenius theorem 5
- Pressure 23-26
- Process 3
  - countable state 3
  - finite state 3
  - reduced 6
- Road problem 70
- Shift-equivalence 12, 76
  - adapted 77
  - strong 72
- Skeleton 40
- Society 38
- State, partition 3
  - space 3
- Subshift of finite type 6
- Suspension 59, 83
- Topological conjugacy,
  - of topological Markov chains 6, 72-83
  - of flows 84
- Topological entropy 23
- Topological Markov chain 6
- Variational principle 21-26
  - Ratio 26
- Williams's, problem 77
  - theorem 74
- Winding numbers, group 55, 61
  - homomorphism 61
- Zeta function 82