

INDEX OF DEFINITIONS

The numbers refer to pages. Single letters are given in the list on p. 163.

- Adjoint representation, 135 f.
 Admissible chart, 6
 Analytic differential form, 18, 83
 — function, 5, 10
 — homeomorphism, 21
 — infinitesimal transformation, 17
 — isomorphism, 49
 — manifold, 6
 — mapping, 20, 23
 — structure, 6
 — subgroup, 51
 Automorphism, 61, 132
 Canonical chart, coordinates, 56, 109
 Chart, 4
 Commutator, 60
 Compatible, 30
 Composition function, 44
 Coordinates, 4
 Covering homomorphism, group, 145 ff.
 Differential, 15
 Differential form, 16, 82
 Dimension, 4, 12, 46
 Discrete space, 9
 Dual space, basis, 13
 Effective, 66
 Endomorphism, 132
 Exponential mapping, 76
 Exterior algebra, 80
 — differentiation, 84
 Functor, 20
 Germ, 42
 Grassmann algebra, 90
 Homogeneous space, 32
 Homomorphism of Lie algebras, 127
 Homotopic, 142
 Ideal, 128
 Identity component, 39
 Induced mapping, topology, etc., 36 ff.
 Infinitesimal transformation, 16, 65
 Inner product, 13
 Invertible mapping, 23
 Isomorphism of Lie algebras, 61
 Jacobi identity, 60
 Kernel of a homomorphism, 127
 Left-invariant, 64, 87
 Lie algebra, 60, 64
 — group, 44
 — product, 60
 Linear form, 13
 Local analytic homomorphism, 72
 — — isomorphism, 49
 — cross-section, 127
 — group, 41
 — isomorphism, 43
 — Lie group, 48
 Locally Euclidean, 5
 Loop, 140
 Manifold, 5
 Maurer-Cartan equations, 96
 — — form, 87
 — — relations, 92
 Natural mapping, homomorphism, 36, 128
 Nucleus, 33, 41
 Open mapping, 37
 Path, path-connected, 140 f.
 Pfaffian form, 82
 Product manifold, 29
 Quotient algebra, 128
 Representation, 135 ff.
 Simply connected, 144
 Structure constants, 65
 Subalgebra, 68
 Submanifold, 25
 Symbol of infinitesimal transformation, 18
 Tangent vector, 11
 Topological group, 30
 — isomorphism, 38, 41
 Torus, 8 f., 39
 Transformation function, 63
 — group, 66
 Translation, 31, 62
 Transpose, 14
 Universal covering group, 139, 152