

# Contents

<b>Chapter I Foundations . . . . .</b>	<b>1</b>
1. Basic notions . . . . .	2
2. General remarks. Examples . . . . .	10
3. Elementary properties . . . . .	22
4. Functorial properties . . . . .	32
5. Differentiable manifolds. Tubes and slices . . . . .	38
6. Families of subgroups . . . . .	46
7. Equivariant maps . . . . .	50
8. Bundles . . . . .	54
9. Vector bundles . . . . .	67
10. Orbit categories, fundamental groups, and coverings . . . . .	72
11. Elementary algebra of transformation groups . . . . .	77
<b>Chapter II Algebraic Topology . . . . .</b>	<b>95</b>
1. Equivariant CW-complexes . . . . .	95
2. Maps between complexes . . . . .	104
3. Obstruction theory . . . . .	111
4. The classification theorem of Hopf . . . . .	122
5. Maps between complex representation spheres . . . . .	133
6. Stable homotopy. Homology. Cohomology . . . . .	139
7. Homology with families . . . . .	150
8. The Burnside ring and stable homotopy . . . . .	155
9. Bredon homology and Mackey functors . . . . .	160
10. Homotopy representations . . . . .	167
<b>Chapter III Localization . . . . .</b>	<b>177</b>
1. Equivariant bundle cohomology . . . . .	177
2. Cohomology of some classifying spaces . . . . .	183
3. Localization . . . . .	190
4. Applications of localization . . . . .	197
5. Borel-Smith functions . . . . .	210
6. Further results for cyclic groups. Applications . . . . .	218

<b>Chapter IV The Burnside Ring . . . . .</b>	<b>227</b>
1. Additive invariants . . . . .	227
2. The Burnside ring . . . . .	240
3. The space of subgroups . . . . .	248
4. Prime ideals . . . . .	251
5. Congruences . . . . .	256
6. Finiteness theorems . . . . .	260
7. Idempotent elements . . . . .	266
8. Induction categories . . . . .	271
9. Induction theory . . . . .	279
10. The Burnside ring and localization . . . . .	285
<b>Bibliography . . . . .</b>	<b>295</b>
<b>Further reading . . . . .</b>	<b>306</b>
<b>Subject index and symbols . . . . .</b>	<b>307</b>
<b>More symbols . . . . .</b>	<b>312</b>