

Table of Contents

Chapter I. Differential Geometric Structures and Integrability	1
1. Pseudogroups and Groupoids	1
2. Foliations	10
3. The Integrability Problem	15
4. Vector Fields and Pfaffian Systems	18
5. Leaves and Holonomy	29
6. Examples of Foliations	35
Chapter II. Prolongations, Connections, and Characteristic Classes . . .	47
1. Truncated Polynomial Groups and Algebras	48
2. Prolongation of a Manifold	55
3. Higher Order Structures	61
4. Connections and Characteristic Classes	70
5. Foliations, Connections, and Secondary Classes	76
Chapter III. Singular Foliations	93
1. The Classifying Space for a Topological Groupoid	94
2. Vector Fields and the Cohomology of Lie Algebras	100
3. Frobenius Structures	106
Chapter IV. Metric and Measure Theoretic Properties of Foliations . . .	108
1. Analytic Background	109
2. Measure, Volume, and Foliations	117
3. Foliations of a Riemannian Manifold	141
4. Riemannian Foliations	155
5. Foliations with a Few Derivatives	175
Bibliography	181
Supplementary Bibliography	191
Index of Terminology	193
Index of Symbols	195