

Contents

Introduction	xiii
Acknowledgements	xvii
Chapter 1. Definitions of Transversely Holomorphic Foliations and Complex Secondary Classes	1
1.1. Basic Notions	1
1.2. Godbillon–Vey Class and Bott Class	11
1.3. Some Known Results	13
Chapter 2. Relation between Real and Complex Secondary Classes	21
Chapter 3. Non-Triviality of the Godbillon–Vey Class	27
3.1. Locally Homogeneous Foliations and Complex Secondary Classes	27
3.2. Calculation of the Lie Algebra Cohomology	34
3.3. Examples	36
3.4. Comparison of Examples	59
Chapter 4. The Rigidity Theorem and Infinitesimal Derivatives	71
4.1. Definitions and Statements of Results	72
4.2. Rigidity under Smooth Deformations	75
4.3. Infinitesimal Deformations, Infinitesimal Derivatives and Rigidity under Infinitesimal Deformations	81
Chapter 5. Relations with the Residue Theory	103