

Table of Contents

§1.	Introduction	1
§2.	Hypoellipticity with loss of one derivative	12
2.1	Introduction and statement of theorem	12
2.2	The test-operators	26
2.3	Proof of theorem	49
2.4	The index of the test-operators	73
2.5	Computation of eigenvalues	86
§3.	Example: Poincaré complexes $(\bar{\alpha}_p)$	137
§4.	Hypoellipticity and asymptotic eigenvalues in the abstract case	152
	Appendix: Remark on simple characteristics	166
	References	168