

Contents

Theory of Operator Algebras III

Preface	XIX
----------------	------------

Chapter XIII

Ergodic Transformation Groups and the Associated von Neumann Algebras	1
--	----------

§ 0 Introduction	1
§ 1 Factors Associated with Ergodic Transformation Groups	1
§ 2 Krieger's Construction and Orbit Structure	14
§ 3 Approximately Finite Measured Groupoids	31
§ 4 Amenable Groups and Groupoids	60

Chapter XIV

Approximately Finite Dimensional von Neumann Algebras	81
--	-----------

§ 0 Introduction	81
§ 1 Inductive Limit and Infinite Tensor Products	82
§ 2 Uniqueness of Approximately Finite Dimensional Factors of Type II_1	95
§ 3 The Group von Neumann Algebras of Free Groups	108
§ 4 Strongly Stable Factors	115
§ 5 Maximal Abelian Subalgebras	137

Chapter XV

Nuclear C^*-Algebras	153
--	------------

§ 0 Introduction	153
§ 1 Completely Positive Approximation and Nuclear C^* -Algebras	154
§ 2 Completely Positive Lifting	168
§ 3 Nuclear C^* -Algebras and Injective von Neumann Algebras	173
§ 4 Grothendieck-Haagerup-Pisier Inequality	186

Chapter XVI

Injective von Neumann Algebras 205

§ 0	Introduction	205
§ 1	Equivalence of Injectivity and Approximately Finite Dimensionality	205
§ 2	Finite Injective von Neumann Algebras (Second Approach)	237

Chapter XVII

Non-Commutative Ergodic Theory 252

§ 0	Introduction	252
§ 1	Non-Commutative Rokhlin Type Theorem	252
§ 2	Stability of Outer Conjugacy Classes	260
§ 3	Outer Conjugacy of Approximately Inner Automorphisms of Strongly Stable Factors	270

Chapter XVIII

Structure of Approximately Finite Dimensional Factors 296

§ 0	Introduction	296
§ 1	AFD Factors of Type III_λ , $0 < \lambda < 1$	296
§ 2	The Flow of Weights and AFD Factors of Type III_0	314
§ 3	Asymptotic Centralizer	329
§ 4	AFD Factors of Type III_1	360

Chapter XIX

Subfactors of an Approximately Finite Dimensional Factor of Type II_1 412

§ 0	Introduction	412
§ 1	AF-Algebras	413
§ 2	Index of Subfactors	420
§ 3	Construction of Subfactors	441
§ 4	Classification of Subfactors of Approximately Finite Dimensional Factors of Type II_1 with Finite Index and Depth	465

Appendix 495

Bibliography 523

Notation Index 541

Subject Index 543



<http://www.springer.com/978-3-540-42913-5>

Theory of Operator Algebras III

Takesaki, M.

2003, XXII, 548 p., Hardcover

ISBN: 978-3-540-42913-5