

Table of Contents

ALGEBRAIC K-THEORY I

Lecture Notes in Mathematics, Vol. 341: "Higher K-Theories"

A. Comparisons and problems

<u>S.M.GERSTEN</u> , Higher K-theory of rings	3
<u>S.M.GERSTEN</u> , Problems about higher K-functors	43
<u>D.W.ANDERSON</u> , Relationship among K-theories	57
<u>D.W.ANDERSON</u> , <u>M.KAROUBI</u> and <u>J.WAGONER</u> , Relations between higher algebraic K-theories.	73

B. Constructions

<u>D.QUILLEN</u> , Higher algebraic K-theory I.	85
<u>J.WAGONER</u> , Buildings, stratifications, and higher K-theory.	148
<u>F.KEUNE</u> , Derived functors and algebraic K-theory.	166

C. Toward some calculations

<u>D.QUILLEN</u> , Finite generation of the groups K_i of rings of algebraic integers.	179
<u>D.HUSEMOLLER</u> , On the homology of the fibre of $\psi^d - 1$	199
<u>S.BLOCH</u> , On the tangent space to Quillen K-theory	205
<u>S.M.GERSTEN</u> , Some exact sequences in the higher K-theory of rings	211
<u>S.B.PRIDDY</u> , Transfer, symmetric groups, and stable homotopy theory	244

D. Higher K-theory and algebraic geometry

<u>S.BLOCH</u> , Algebraic K-theory and algebraic geometry.	259
<u>K.S.BROWN</u> and <u>S.M.GERSTEN</u> , Algebraic K-theory as generalized sheaf cohomology.	266
<u>J.-P.JOUANOLOU</u> , Une suite exacte de Mayer-Vietoris en K-théorie algébrique.	293
<u>J.-P.JOUANOLOU</u> , Quelques calculs en K-théorie des schémas	317

ALGEBRAIC K-THEORY II

Lecture Notes in Mathematics, Vol. 342: "'Classical' Algebraic K-Theory, and Connections with Arithmetic"

A. The functors K_0 and K_1

<u>H.BASS</u> , Some problems in "classical" algebraic K-theory.	3
<u>L.ROBERTS</u> , Comparison of algebraic and topological K-theory.	74

<u>J.-L.LODAY</u> , Applications algébriques du tore dans la sphère et de $S^p \times S^q$ dans S^{p+q}	79
<u>C.PEDRINI</u> , On the K_0 of certain polynomial extensions.	92
<u>C.PEDRINI</u> and <u>M.P.MURTHY</u> , K_0 and K_1 of polynomial rings.	109
<u>L.ROBERTS</u> , Base change for K_0 of algebraic varieties	122
<u>K.G.CHOO</u> , <u>K.Y.LAM</u> and <u>E.LUFT</u> , On free products of rings and the coherence property	135
<u>A.J.CASSON</u> , Whitehead groups of free products with amalgamation.	144
<u>F.WALDHAUSEN</u> , Whitehead groups of generalized free products	155
 <u>B. Representation theory</u>	
<u>A.W.M.DRESS</u> , Contributions to the theory of induced representations	183
 <u>C. The functor K_2 of Milnor</u>	
<u>R.K.DENNIS</u> and <u>M.R.STEIN</u> , The functor K_2 : A survey of computations and problems.	243
<u>M.R.STEIN</u> and <u>R.K.DENNIS</u> , K_2 of radical ideals and semilocal rings revisited.	281
<u>J.E.HUMPHREYS</u> , Variations on Milnor's computation of $K_2(\mathbb{Z})$	304
<u>WU-CHUNG HSIANG</u> , Decomposition formula of Laurent extension in algebraic K-theory and the role of codimensional 1 submanifold in topology	308
<u>A.E.HATCHER</u> , Pseudo-Isotopy and K_2	328
<u>B.HARRIS</u> and <u>J.STASHEFF</u> , Suspension, automorphisms, and division algebras	337
 <u>D. K_2 of fields via symbols</u>	
<u>H.BASS</u> and <u>J.TATE</u> , The Milnor ring of a global field (with an appendix on euclidean quadratic imaginary fields, by J.Tate)	349
<u>R.ELMAN</u> and <u>T.Y.LAM</u> , On the quaternion symbol homomorphism $\varepsilon_F: K_2(F) \rightarrow B(F)$	447
<u>J.E.CARROLL</u> , On the torsion in K_2 of local fields.	464
<u>J.GRAHAM</u> , Continuous symbols on fields of formal power series	474
 <u>E. Arithmetic aspects of K-theory</u>	
<u>S.LICHENBAUM</u> , Values of zeta-functions, étale cohomology, and algebraic K-theory	489
<u>J.COATES</u> , K-theory and Iwasawa's analogue of the Jacobian.	502
<u>J.COATES</u> , Research problems: Arithmetic questions in K-theory	521
<u>J.TATE</u> , Letter from Tate to Iwasawa on a relation between K_2 and Galois cohomology	524

ALGEBRAIC K-THEORY III

Lecture Notes in Mathematics, Vol. 343: "Hermitian K-theory and geometric applications"

<u>J.L.SHANESON</u> , Hermitian K-theory in topology.	1
<u>J.L.SHANESON</u> , Some problems in hermitian K-theory	41
<u>M.KAROUBI</u> , Some problems and conjectures in algebraic K-theory. .	52
<u>H.BASS</u> , Unitary algebraic K-theory.	57
<u>C.T.C.WALL</u> , Foundations of algebraic L-theory	266
<u>M.KAROUBI</u> , Périodicité de la K-Théorie Hermitienne.	301
<u>A.A.RANICKI</u> , Algebraic L-theory III. Twisted Laurent extensions .	412
<u>R.SHARPE</u> , Surgery and unitary K_2	464
<u>L.R.TAYLOR</u> , Surgery groups and inner automorphisms.	471
<u>S.CAPPELL</u> , Mayer-Vietoris sequences in hermitian K-theory . . .	478
<u>S.CAPPELL</u> , Groups of singular hermitian forms	513
<u>S.MAUMARY</u> , Proper surgery groups and Wall-Novikov groups. . . .	526
<u>T.PETRIE</u> , Induction in equivariant K-theory and geometric applications	540