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Index of Definitions

- additive quadratic form : **8.4**
- almost nondegenerate : (2.ex.14)
- almost orthogonal (or orthonormal)
basis : **8.2**
- anisotropic : **2.7, 8.4**
- Arf invariant, – subalgebra : **3.7**,
(3.ex.25)
- associated bilinear mapping : **2.1**
- Azumaya algebra : (3.5.1)

- balanced grading : (3.5.2)
- bilinear module, – space : **2.5**
- Brauer (-Wall) group : **3.5**

- cancellation : (2.7.7)
- canonical scalar product : (4.8.8)
- Cartan-Chevalley mapping : (7.2.3)
- Cartan-Chevalley criterion : (7.4.1)
- central simple algebra (graded –) :
6.6
- centralizer (graded –) : **6.5**
- Clifford algebra : **3.1**
- Clifford group : **5.1**
- cliffordian quadratic form : (4.8.1)
- coalgebras, comodules : **4.1**
- comultiplication, counit, . . . : **4.1**
- conjugation : **3.1**, before (3.6.8)
- covariant or contravariant functor :
1.5

- decomposable : **4.5**
- defective : (2.ex.6), (5.7.1), **8.4**
- definite (positive or negative –) : **2.8**
- deformation : (4.7.1)
- derivation : (4.3.4), (4.4.4), (6.5.9)
- determinant : **3.6**

- direct (or inductive) limit : (1.ex.27)
- direct sum, – product : **1.3**
- direct summand : **1.13**
- discriminant module : **3.4, 3.8**
- divided powers : **4.6**
- divided trace (complex, twisted
–) : **6.8**
- division algebra (graded –) :
(3.5.20), before (6.6.2)
- dual category : **1.3**

- equivalence of categories : **6.4**
- exact sequence, – functor : **1.6**
- exponential : **4.5**
- extension of ring, – of module : **1.8**
- exterior algebra : **4.3**

- faithful functor : **6.2**
- faithful module : (1.13.3)
- filtration : **3.1, 5.2**
- finitely presented : **1.8**
- flat, faithfully flat : **1.7, 1.9**
- fractions : **1.10**
- freely generated module : **1.3**
- functor : **1.5**

- . . . - g -linear : **6.2**
- generator of modules : **6.1**, (6.2.9)
- grade automorphism : **3.1, 3.2**
- graded center : (3.5.2)
- grading (or gradation) : **4.2**

- half determinants : (2.ex.13)
- homogeneous : **3.2, 4.2**
- hyperbolic space : **2.5**

- indefinite : **2.8**
- infinitesimal... : **5.4**
- integral domain : **1.10**
- interior multiplication : **4.3, 4.4**
- invariance property : (5.4.1)
- invertible module : (1.12.10)
- involution of an algebra : (1.13.7)
- irreducible module : **6.3**
- invertible module : (1.12.10)
- invertible submodule : (1.ex.25),
after (5.1.12)
- isotropic : **2.5**

- Leibniz formula : (4.1.3), (4.3.8),
(4.4.9), (4.4.10)
- Lie algebra : **5.4**
- Lipschitz monoid, – group : (5.3.1)
- lipschitzian : (5.3.1)
- local ring, localization : **1.10**
- local property : **1.11**
- localization of q : **2.2**

- maximal ideal : **1.10**
- metabolic space : **2.5**
- Morita context (graded –) : (6.4.1)
- multiplicative subset : **1.10**

- nondegenerate : **2.3**
- norm : (1.13.7)

- opposite algebra : **3.1**
- orthogonal : **2.1, 2.3**
- orthogonal basis : **2.6**
- orthogonal group : **5.1**
- orthogonal sum : **2.4**
- orthogonal summand : **2.6**
- orthogonal transformation : **5.1**

- parity grading : **4.2**
- parity of a submodule T : **7.5**
- pfaffian : after (5.9.7)
- Picard group : after (1.12.10)
- prime ideal : **1.10**
- projective (or inverse) limit :
(1.ex.27)
- projective module : **1.7, (6.2.8)**

- Prüfer ring : **8.3**
- purely inseparable : **8.5**

- quadratic extension : **3.4**
- quadratic form, – mapping : **2.1**
- quadratic module, – space : (2.5.1)
- quaternion algebra : **3.3**, end of **3.6**,
3.8
- quotient module : **1.3**

- radical of a ring : (1.10.2)
- rank : **1.12**
- reduced center : after (5.1.5)
- reflection : **5.5**
- regular filtration : **5.2**
- regular grading : (3.5.2)
- residue field : **1.10**
- reversion : (3.1.4)

- scalar component : end of **4.8**
- scalar product (admissible –) :
(4.8.6)
- scalar product (on a module) :
(6.8.10), **7.3**
- semi-simple module (or algebra) :
5.3
- separable (graded –) : **6.5**
- shifted grading : **6.2**
- signature : after (2.8.1)
- simple algebra (graded –) : **6.6**
- spectrum of a ring : **1.11**
- spinor : (6.2.2), end of **7.3**
- spinorial group : (5.ex.24)
- spinorial norm : (5.ex.21)
- splitting exact sequence : **1.6**
- standard involution : (1.13.7)
- support : before (7.6.4)
- symmetric algebra : **1.4**
- swap automorphism : **3.2**

- tamely degenerate : before (5.6.7)
- tensor algebra : **1.4**
- tensor product : **1.3, 2.4**
- totally isotropic : **2.5**
- trace : (1.13.7), **3.6**
- twisted algebra : **3.2**

twisted module : **6.2**
twisted inner automorphism : **5.1**,
 especially (5.1.5)
twisted opposite algebra : **3.2**
twisted opposite bilinear form : **4.7**
twisted tensor product : **3.2**
type (even or odd) : **2.8**, (3.5.14)
universal object : **1.2**
Villamayor group : (3.ex.18)
Weyl algebra : (4.ex.18)
Witt rings : **2.7**
Witt-Grothendieck rings : **2.7**
Zariski extensions : (1.10.6)
Zariski topology : after (1.11.1)

Index of Notation

Here every algebra is denoted by A (or B), every module by M (or N),... Only notations that are important, or that are used several times, are recalled here. According to the context, single letters like $\beta, \gamma, \varepsilon, \varphi, \dots$ may also be used with another meaning than the one recalled here.

A^\times : 1.1	$\text{cp.dv.tr}(\tau)$: 6.8
$A^\circ, A^t, A^{t\circ}$: 3.1, 3.2	∂x : 3.1 and 4.2
$(A^2)^g$: 3.5	$d_q, d_\varphi, d_\beta, d_\beta^{t\circ}, \dots$: 2.3 and 4.7
$(A^{\leq k})_{k \in \mathbb{Z}}$: 3.1 and 5.2	$\det(f)$: 3.6
A^{ng} : 3.8	$\text{Disc}(K)$: 3.8 , also (3.ex.27)
A_D : 3.8	$\text{Der}^g(A, M)$: 6.5
$A \hat{\otimes}_K B$: 3.2	$\text{End}_K(M)$: 1.1
$[a], ((a))$: 8.1	$\text{End}_A^g(M)$: 6.2
$[a, b], ((a, b))$: 8.2	$\text{Exp}(x)$: 4.5
$\langle a \rangle, \langle a_1, a_2, \dots, a_n \rangle$: 2.6	$\varepsilon_A, \varepsilon'_A$: 4.1
$\langle a_1, b_1; a_2, b_2; \dots; a_n, b_n \rangle$: 8.2	$\varepsilon, \varepsilon'$: 4.3
$\text{Alg}(K)$: 1.1	$f \wedge g, x \rfloor f, f \rfloor x$: 4.3 and 4.4
$\text{Aut}(M, q)$: 5.1	F_y : 5.5
b_q : 2.1	G_x, G_X : 5.3
$\text{Bil}_K(M, N)$: 2.1	$\text{GCl}(M, q), \text{G}'\text{Cl}(M, q),$ $\text{G}''\text{Cl}(M, q)$: 5.1
$\text{BLip}(V, q)$: 7.2	$\text{GLip}(M, q), \text{G}'\text{Lip}(M, q),$ $\text{G}''\text{Lip}(M, q)$: 5.3
$\text{Br}(K), \text{Br}^g(K)$: 3.5	$\text{GO}(M, q)$: 5.1
$\text{Br}_2(K)$: 8.6	$\text{Gr}(A), \text{Gr}^k(A)$: 3.1
$\beta^{t\circ}, \beta_n, \beta_{n\cdot}, [\beta], \dots$: 4.7	$\Gamma_K^2(M), \gamma$: 2.1
\mathbb{C} : 1.1	\mathbb{H} : 1.1
$\mathcal{C}_K(N)$: 2.4	$\mathcal{H}(K)$: 8.6
$\text{Com}(K)$: 1.1	$\mathbf{H}[M], \mathbf{H}(M)$: 2.5
$\text{Cl}_K(M, q), \text{Cl}^{\leq k}(M, q)$: 3.1	$\text{Hom}_K(M, N)$: 1.1
$\text{Cl}_0(M, q), \text{Cl}_1(M, q)$: 3.2	$\text{Hom}^\wedge(A, B)$: 4.2
$\text{Cl}(M, q; \beta)$: 4.7	$\text{Hom}_A^g(M, N),$ $\text{Hom}_{A,0}(M, N)$: 6.2
$\text{Cl}^k(M, q)$: 4.8	id_M : 1.2
$\text{Cl}(M, q; V)^{\leq k},$ $\text{Cl}(M, q; U, V)^k$: 5.2	
$\text{Cl}_0^{\leq 2}(M, q)$: 5.4	

- $\text{Id}_{\mathcal{C}}$: **2.4**
 $\text{Im}(f)$: **1.6**
 $\text{Ip}(K)$, $\text{Ip}'(K)$: **3.4**
 $K_{\mathfrak{p}}$: **1.10**
 $\text{Ker}(f)$: **1.6**
 $\text{Ker}(q)$, $\text{Ker}(b_q) = \text{Ker}(d_q)$: **2.2**
 $\text{Lip}(M, q)$, $\text{Lip}(M)$, $\text{Lip}^*(M)$: **5.3**
 $\text{lip}(M)$: **5.9**
 $\bigwedge_K(M)$: **3.1** and **4.3**
 $\bigwedge^*(M) = \text{Hom}(\bigwedge(M), K)$: **4.3**
 $\bigwedge(M; \beta)$: **4.7**
 $\bigwedge^{\max}(U)$: (3.2.6)
 M^* : **1.7**
 M^{\perp} : **2.3**
 $M_{\mathfrak{p}}$: **1.10**
 M^c , M^t , M^s, \dots : **6.2**
 $\mathbf{M}(M, \varphi)$: **2.5**
 $M \otimes_K N$: **1.3** and **2.4**
 $M \otimes_A N$: **6.4**
 $M \perp N$: **2.4**
 $\mathcal{M}(m, A)$, $\mathcal{M}(m, n; A)$: **6.6**
 $\text{Mod}(A)$: **1.1**
 $\text{Mod}^g(A)$, $\text{Mod}_0(A)$,
 $\text{Mod}(A^{t\circ})$: **6.4**
 $\mu_2(K)$, $\mu_4(K)$,
 $\mu_8(K)$: (3.4.14), **6.8**
 \mathbb{N} : **1.1**
 $\mathcal{N}(x)$: (1.13.7)
 $\text{par}(\mathfrak{p}; U, T)$: **7.6**
 $\text{Pic}(K)$: **1.12**, also (3.ex.27)
 π , π_* , π' , π^* : **4.3**
 π_A , π_M , π'_A , π'_M : **4.1**
 π_q , π'_q : **4.4**
 φ : often as in **2.4** or (1.13.7)
 \mathbb{Q} : **1.1**
 \mathcal{Q} : **3.8**, **8.6**
 $Q(K)$, $Q^g(K)$: **3.4**
 $\text{Quad}_K(M, N)$: **2.1**
 $\text{QZ}(A)$: **3.5**
 $\text{QZ}(M, q)$: **3.7**
 \mathbb{R} : **1.1**
 R_x : **7.2**
 $\text{rk}(\mathfrak{p}, M)$: **1.12**
 $\text{Rad}(K)$: (1.10.2)
- ρ : **3.1**
 $S_K(M)$: **1.4**
 $S^{-1}K$, $S^{-1}M$: **1.10**
 $\text{Scal}(x)$: **4.8**
 $\text{SO}(M, q)$: **5.6**
 $\text{Spec}(K)$: **1.10**
 $\text{Spin}(M, q)$: end of **7.3**
 $\text{Spin}^{\pm}(M, q)$: (5.ex.24)
 σ : **3.1** and **4.3**
 \top , \top^{\wedge}, \dots : **4.1** and **4.2**
 $T_K(M)$: **1.4**
 $T(M, q)$: **7.2**
 $\text{tr}(x)$: (1.13.7), **3.6**
 $\text{tr}(f)$: **3.6**
 $\text{tw.dv.tr}(\tau)$: **6.8**
 Θ_x , Θ_X : **5.1**
 τ : (3.1.4)
 $\mathcal{V}(\mathfrak{a})$: **1.10**
 $\text{WB}(K)$, $\text{WQ}(K)$, $\text{W}(K)$: **2.7**
 $\text{WGQ}(K)$, $\text{WGQ}(K)$, $\text{WG}(K)$: **2.7**
 $\text{WIQ}(K)$, $\text{WIQ}(K)$, $\text{WI}(K)$: **2.7**
 \mathbb{Z} : **1.1**
 $Z(A)$, $Z^g(A)$, $Z(A_0, A)$: (3.5.2)
 $Z^g(\theta)$, $Z^r(\theta)$, $Z^r(A)$: **5.1**
 $Z^g(A, M)$: **6.5**