Corrections and additions to

Polytopes, rings, and K-theory

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If you should find a mistake in of our book, mathematical or typographical, please let us know by e-mail to

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p. 10, 1.B, l. 1 set $\to$ sets

p. 71, l. −1 $v = q$ or $vq \equiv 1 \ (p)$

p. 147, Theorem 4.32 Replace –– in (b) and (c) by –

p. 200, Theorem 6.1, l. 2 all maximal M-sequences in I

p. 214, l. −11 $^*\mathrm{Ext}_S^{n-d}(\omega', \omega_S) = R$

same page, l. −10 $\omega' = {}^*\mathrm{Ext}_S^{n-d}(R, \omega_S)$

same line $(n-d)$th total Betti number

p. 215, l. 1 $^*\mathrm{Ext}_R^d(\Bbbk, \omega_S) \to {}^*\mathrm{Ext}_R^d(\Bbbk, \omega')$

same page, l. 4 $^*\mathrm{Ext}_R^d(\Bbbk, \omega_S) \to {}^*\mathrm{Ext}_S^d(\Bbbk, \omega')$

p. 217, (6.7) Replace –– by –

p. 217, l. −14 insert space after “splits”

p. 247, Exercise 6.11 Delete “normal” from the hypothesis.

p. 316, 8.41, l. 5 rank d → rank $\geq d$

p. 325, l. −4 Lopez → Logar

p. 346, l. 4 suslin → Suslin

p. 350, l. −14 quillen → Quillen

p. 393, l. 17 totaro → Totaro

p. 405, l. −7 $dt \to dT$

p. 426, Exercise 10.5 Franchisco Santos suggested the following fast construction of the "bordism" polytope $\tilde{P}$. Let $Q \subset \mathbb{R}^n$ be any support polytope for a projective unimodular triangulation $\mathscr{F}$ of the fan $\mathscr{N}(P)$. Then the polytope

$$\tilde{P} = \operatorname{conv}\big((P, 0), (Q, 1)\big) \subset \mathbb{R}^{n+1}$$

has all the properties mentioned in the exercise. In fact, one wants that the vertices of $\tilde{P}$, corresponding to the vertices of Q, are simple (and, hence, unimodular). But if this is not the case then the polytope $R_h = \tilde{P} \cap (\mathbb{R}^n, h)$ with $h \in (0, 1)$ is not combinatorially equivalent to Q. On the other hand, $\mathscr{N}(R_h) = \mathscr{N}(P + Q)$ and $\mathscr{N}(P + Q)$ is the smallest common subdivision of $\mathscr{N}(P)$ and $\mathscr{N}(Q)$ (i. e., the intersection of $\mathscr{N}(P)$ and $\mathscr{N}(Q)$; see p. 34). In our situation, the latter condition means $\mathscr{N}(P + Q) = \mathscr{N}(Q)$.

p. 427, l. 13 show → Show