Higher Operads, Higher Categories: Errata

Tom Leinster
leinster@ihes.fr

14 August, 2003

This is the errata list for my book, *Higher Operads, Higher Categories* (`www.arxiv.org/math.CT/0305049`). I would be grateful to hear of further errors. The document you are now reading, or an updated version of it, can be found at `www.ihes.fr/~leinster`.

I thank Clemens Berger and Joachim Kock for their contributions.

p. ix, last line: 'the the unit element' should be 'the unit element'

p. 24, Example 1.4.10, line 3: '$0 \leq r \leq n$' should be '$0 \leq r \leq m$'

p. 31, paragraph beginning 'We might expect', line 5: 'making a bicategory into a tricategory' should be 'making bicategories into a tricategory'

p. 50, line -6: 'a E-algebra' should be 'an E-algebra'

p. 54, Definition 2.2.21, line 4: delete 'of C'

p. 59, diagram (2:11): 'τ_3' should be 'τ_n'

p. 113, Example 4.2.10(b), right-hand side of displayed equation: '$(B \otimes A)^\circ$' should be '$B^\circ \otimes A^\circ$'

p. 137, triangular diagram: the double-shafted arrow '$\Searrow$' should be '$\Swarrow$'

p. 201, first paragraph, second-to-last line: insert space after 'n-cells'

p. 203, first line after last displayed equation: insert full stop after closing parenthesis

p. 208, equation (7:17): '$\mathbf{Alg}(C)$' should be '$\mathbf{Alg}(C^+)$'

p. 209, Example 7.5.1, line 6: '$k_1, \ldots, k_r$' should be '$k_1, \ldots, k_n$'

p. 214, proof of 7.6.1, lines −8 to −4: should read

> … is just a commutative monoid, so $U_2F_2(X)$ is the 2-computad with one 0-cell, one 1-cell, and 2-cells corresponding to the elements of the free commutative monoid $M(X_2)$ on the set X_2 of 2-cells of X. Since any two 2-cells of $U_2F_2(X)$ are parallel, …

p. 258, last paragraph of Notes: add to end: 'Constructions of the fundamental ω-groupoid of a space (Example 9.2.7) can also be found in Batanin [1998a, §9] and Berger [2002, 4.20(4)].'

p. 264, last paragraph, line 6: '$\zeta(\theta,\theta)$' should be '$\kappa(\theta,\theta)$'

p. 269, line −4: 'Joyal has proposed [1997] a way' should be 'Joyal [1997] proposed, effectively, a way'

p. 270, second paragraph, last two lines: 'equivalent to … are functors' should read 'which turns out to be equivalent to the opposite of Δ_ω; see the Notes for references. So his weak ω-categories were defined as functors'

p. 275, 3rd line after bold text 'Segal category': 'Simpsonand' should be 'Simpson and'

p. 276, last two bullet points: delete 'at the intersection,' and 'at the union,'

p. 276, third paragraph of Notes: should read

> Berger [2002] has investigated nerves of ω-categories in detail, making connections to various proposed definitions of weak ω-categories. Other work on higher-dimensional nerves has been done by Street ([1996, §10] and references therein) and Duskin [2002, 2001]. Berger's Proposition 2.2 provides most of a proof that the category $\mathbb{I}_\omega$ of finite disks used in Joyal's definition is the opposite of the category Δ_ω of globular pasting diagrams. A different proof was given by Makkai and Zawadowski [2001], and Joyal's definition has also been illuminated by Batanin and Street [2000].

p. 361, bibliography entry for Penon: '∞-categories' should be '∞-catégories'