

ERRATA

Explainable Uncertain Rule-Based Fuzzy Systems, 3rd Edition

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There is something to be said for every error, but whatever be said for it, the most important thing to be said about it is that it is erroneous.

G. K. CHESTERTON, *All is Grist*

A man who has committed a mistake and doesn't correct it is committing another.

CONFUCIUS

Note: Spacing errors and font-size errors are not listed.

Chapter 1

Page 2, Section 1.1.2.2, line 4: Change $[a, b_r]$ to $[a, b_r]$

Chapter 2

Page 34, Example 1.14, (2.46), lines 2, 5, and 6: Insert a comma/space after (u_1, w_2) .

Page 35, (2.47), lines 1, 2, 4 and 5: Insert a comma/space after (u_1, w_2) .

Page 67, Exercise 2.21 (d): Change “u is skinny” to “*u* is skinny”.

Page 70, Exercise 2.47, last paragraph, line 3: Change “Fig. 2.2.5a” to “Fig. 2.25b”.

Page 71, Fig. 2.25: Labels (a) and (b) should be interchanged.

Page 71, (a), line 1: Change 2.25 b to 2.25a.

Page 71, (b): Change 2.25a to 2.25b.

Chapter 3

Page 124, Fig. 3.28b: Strictly speaking, (b) should only show first-order rule partitions. The origin line is a second-order partition line. So, label 1\2 is unchanged; 2\3, 3\3 are merged into 2\3; and, 4\2 becomes 3\2.

Page 130, Line 5 below Table 3.8: Change “below” to “above”.

Chapter 4

Page 150, one line above (4.13): Change J_m to J_m .

Page 151, two lines below (4.15): There should be a period after the last parenthesis to indicate the end of a sentence.

Page 154, (4.24): Change “ $j=1$ ” to “ $j=0$ ”.

Chapter 5

Page 221, line 9: Change “achieve. Tractability” to “achieve tractability”.

Chapter 6

Page 257: Remove the footnote, since it appears on page 258.

Page 275, Fig. 6.30, top left-hand figure: Change “unlikley” to “unlikely”.

Chapter 7

Page 281, Section 7.1, Paragraph 2, line 1: Change “IT2 FSs and then on” to “IT2 FSs then on”.

Page 309, line 2: Change “(7.79)” to “(7.55)”.

Page 337, Exercise 7.50, line 4: Change “Ch. 4) for” to “Ch. 4 for”.

Chapter 8

Page 355, Section 8.3.3.2, paragraph 2, line 4: Remove “Greenfield (2018)”. This reference does not present either a modified or other algorithm for computing the centroid type-reduced set. Instead, it explains why the Coupland-John geometric defuzzification method (see Coupland and John, 2007 at the end of Chapter 9) is invalid.

Page 372, Table 8.12, Step 2, rhc: (1) change “ $b_l \geq y_r$ ” to “ $b_l \geq y$ ”; and, (2) In numerator and denominator, change “ c ” to “ d ” and “ d ” to “ c ”.

Page 376, Table 8.13; In the first lhc block, change “max” to “min”.

Chapter 9

Page 390, last paragraph, line 1: Change “firing interval” to “firing set”.

Page 402, Section 9.5, line 4: Change “At the” to “In the”.

Page 413, Fig. 9.13, part (a): the first four labels along the horizontal axis should have minus signs in front of them.

Page 413, Fig. 9.13, part (b): the first three labels along the horizontal axis should have minus signs in front of them.

Page 418, Section 9.9, Coupland and John (2007): The following footnote should be added:

“ Their direct defuzzification formula does not reduce to the correct type-1 defuzzification formula when an IT2 FS reduces to a T1 FS; hence, its is not valid for our works, since it violates our fundamental requirement that T2 results must reduce to correct T1 results when a T2 FS (system) reduces to a T1 FS (system).”

Page 425, (9.184): The numerator should be pre-multiplied by m .

Page 425, (9.185): The numerator should be pre-multiplied by n .

Chapter 10

Page 460, Section 10.1.5, Top item 3, line 3: Change “TSK fuzzy” to “TSK IT2 fuzzy”.

Page 505, Section 10.7.3.1, line 2: Change “ I ” to “ i ”.

Page 505, (10.73): This entire equation should be pre-multiplied by $\frac{1}{2}$.

Page 510, two lines below (10.91): “Change “becaus” to “because.”

Chapter 11

Page 538, Item 1: Change “9.1” to “9.2”.

Page 558, Example 5.13, line 5: Change “max x_3 ” to “max x_i ”.