

Renormalization Methods: A Guide for Beginners, W. D. McComb (Oxford University Press): Errata

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Open bullets are for syntax errors and typos, closed are for physics and formulas errors and dash are general comments; question mark in parentheses means that I'm not sure of the correction but I know that the text is wrong. Some remarks are present for my own understanding such that you may not find them useful. These errata have not been reviewed by the author nor the editor and I can have made some mistakes.

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- In all the text the vectors are not always well denoted as such: on the same page the same vector quantity ϕ may be written ϕ (few cases are listed below).
- Similarly the same partition function may be denoted by \mathcal{Z} or Z (e.g. p. 57, p. 94...).
- p. 23 (al page): $A_i \rightarrow a_i$
- p. 62 (eq. 2.44): $e^{-r/q} \rightarrow e^{-r/\xi}$
- p. 75 (last equation): $X = X \rightarrow X = X - X^3/3$. The written equation is trivially satisfied, so to get only the solution $X = 0$ we need to go the next order.
- p. 105 (§2): thus ensuing \rightarrow ensuring
- p. 111: On this page the explanation involving the spacetime dimension and the range of the vector field index is not very clear. In fact if we want to stick to d dimension, then we should replace:
 - §2: " u_α with $\alpha = 0, \dots, 3$ " \rightarrow " u_α with $\alpha = 0, \dots, d-1$ " since the vector field has the same dimension as the spacetime
 - eq. 5.2: $d^3j \rightarrow d^dj$

Moreover in §2 saying that the case $\alpha = 0, \dots, 3$ includes the case $\alpha = 1, 2, 3$ is slightly odd.

- p. 111 (eq. 5.3): $k' \rightarrow \mathbf{k}'$
- p. 114 (eq. 5.15): $f \rightarrow \mathbf{f}$

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- p. 131 (sec. 6.1.2): The sentence "dimensionless with respect to time" is quite confusing; saying that we just want the characteristic scale (which is by definition is not a time) would be clearer.
- p. 165: This passage is quite confusing. In fact we do not "tak[e] the equality" as it is written, but we define the RHS of eq. 7.71 to be \tilde{F} , since we still have $F \leq \tilde{F}$ and the two symbols need to be distinguished. Then one can minimize \tilde{F} to try to approach F . It is only on p. 166 that we see that in this specific example one has $F = \tilde{F}_{\min}$.
- p. 190 (eq. 8.36-37): $f \rightarrow \bar{f}$
- p. 220 (above eq. 9.87): $b^{d-2-d\phi} \rightarrow b^{d-2-d_\phi}$
- p. 242 (below eq. 10.59): "further in sec. 9.6.3" \rightarrow "sec. 9.6.4"
- p. 302 (above eq. A.21): "satisfies the normalization requirement (A.14)" \rightarrow (A.13)