Errata for "Stochastic Modelling for Systems Biology, second edition"

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This is the errata for the book *Stochastic Modelling for Systems Biology, second edition*, published by Chapman & Hall/CRC, November 2011. Note that there is a separate errata for the first edition. I will update this as I (or others) spot errors, so please check regularly. I will update the date (above) with each new issue. If you have found an error not listed below, then please email me at `darren.wilkinson@ncl.ac.uk` with page number and details.

You can get the latest version of this errata from:

`http://www.staff.ncl.ac.uk/d.j.wilkinson/smfsb/2e/errata2e.pdf`

- p.32,l.-5. Replace the text:

  > It is fairly clear that the dimension of the image-space and null-space must sum to the dimension of the space being mapped into, which is the number of rows of the matrix. So, if we fix on S, which has dimension $u \times v$, suppose the rank of the matrix is k. Let the dimension of the null-space of S be p and the dimension of the null-space of $A(= S^{\mathsf{T}})$ be t.

  with the text:

  > By the *rank-nullity theorem*, the dimension of the image-space and null-space must sum to the dimension of the space being operated on, which is the number of columns of the matrix. So, if we fix on S, which has dimension $u \times v$, suppose the rank of the matrix is k. Let the dimension of the null-space of S be t and the dimension of the null-space of $A(= S^{\mathsf{T}})$ be p.

  Thanks to Ragesh Kumar Ramachandran for spotting this issue.

- p.151. The description of how to simulate uniform order statistics isn't quite correct.
  - l.11. The CDF should be $F_{(1)}(x) = 1 - (1 - x/T)^m$, and so it is now also debatable as to whether it is really "clear"!
  - l.12. You should therefore set $x_{(1)} = T(1 - u^{1/m})$.
  - l.14. You should therefore set $x_{(i)} = x_{(i-1)} + (T - x_{(i-1)})(1 - u^{1/(m-i+1)})$.
  - l.20. Step (b) should then be as above.

  Thanks to GitHub user @msadeghpour for spotting this error.

- p.157,l.13. The three "2"s that occur in the expression should all be "3"s, as it represents the third-order term in the Taylor expansion. *Thanks to Mark Girolami for pointing out this typo.*

- p.164,l.12. The equation should read:

$$dY_t = \mu \left(\frac{2\lambda}{\mu} - Y_t \right) dt + \sqrt{\mu}\sqrt{Y_t} dB_t.$$

  Thanks to Silvia Calderazzo for this correction.

- p.294,l.–6. Item 6. The condition should be "$t < T$", not "$t < M$".

- p.306,l.–7. There is a prime ($'$) missing from the second k'.