

Erratum

Page	As printed / Reference	Correction
iii	“Thank your for the coffee breaks”	Replace “your” with “you”.
iii	“I would like to express my special gratitude appertains to an other member”	Remove “appertains” and replace “an other” with “another”.
xi	“we overcome this problem be intertwining modeling and simulation”	Replace “be” with “by”.
xi	“heterogenous cell populations”	Replace “heterogenous” with “heterogeneous”.
2	“the potentially altered signaling caused be the transfection”	Replace “be” with “by”.
7	“Intrinsic variability is model by”	Replace “model” with “modeled”.
7	“transfer of methods develop for single cell models”	Replace “develop” with “developed”.
8	“renders their application computationally trackable”	Replace “trackable” with “tractable”.
8	“to reduced the”	Replace “reduced” with “reduce”.
10	“Markov models accounts”	Replace “accounts” with “account”.
12	“these two drawbacks of the RRE limits its application”	Replace “limits” with “limit”.
14	“the MJP resolves each reaction events”	Replace “events” with “event”.
22	“as single realization of the stochastic process is generated”	Replace “as” with “a”.
22	“a multitude of differential MCMC schemes”	Replace “differential” with “different”.
25	“(. . . , 2011;Schittler et al., 2010)”	Insert a space after the semicolon.
26	“This different phenotypes”	Replace “This” with “These”.
27	“The locally Lipschitz vector fields . . . describing . . . ”	Replace “describing” with “describe”.
31	“This is achieved be marginalization”	Replace “be” with “by”.
31	“differential initial conditions”	Replace “differential” with “different”.
34	$H = \text{diag} \left(\hat{\sigma}_1^2, \dots, \hat{\sigma}_{d_Y}^2 \right) d_{\mathcal{S}}^{\frac{1}{d_Y+4}}$	Replace “ $\frac{1}{d_Y+4}$ ” with “ $-\frac{2}{d_Y+4}$ ”.
37	“head-type functions”	Replace “head” with “hat”.
37	Equation 3.38	Replace “ $p(y \mid t, p_{0,\varphi})$ ” with “ $p(y \mid t^i, \Lambda_j)$ ”.
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37	Equation 3.39 to 3.41	Replace “ t ” with “ t^i ”.
41	Section 3.3.4: The claimed convexity of the maximum a posteriori estimation problem is based on the assumption that the prior density $\pi(\varphi)$ is quasiconcave.	Replace the quasiconcavity assumption by log-concavity of the prior density on the probability simplex. Equivalently, formulate the optimization problem in terms of the negative log-posterior on its effective domain. The likelihood contributions $\log(\varphi^\top c^i)$ are concave because $\varphi^\top c^i$ is affine and positive on this domain, and the logarithm is concave and monotonically increasing. Together with the concavity of $\log \pi(\varphi)$, this yields a convex negative log-posterior. Accordingly, Definition 3.14, Theorem 3.15, its proof, and Remark 3.16 should refer to log-concavity rather than quasiconcavity, and convexity rather than quasiconvexity. The posterior is therefore log-concave and hence quasiconcave. Updates of the surrounding text follow accordingly.
44	“obtained be weighting”	Replace “be” with “by”.
59	“section on modeling of cell proliferating in based upon”	Replace “proliferating in” with “proliferation is”.
60	“the mother cells grows”	Replace “cells” with “cell”.
62	“only six to eight division”	Replace “division” with “divisions”.
71	“with initial conditions $\forall i : p(x 0, t) \equiv \gamma_i p_0(\gamma_i x)$ ”	Replace “ $p(x 0, t)$ ” with “ $p(x i, 0)$ ”.
99	“heterogenous cell populations”	Replace “heterogenous” with “heterogeneous”.
99	“Analogously to parameter estimation”	Replace “Analogously” with “Analogously”.
100	“convergence rate decrease”	Replace “decrease” with “decreases”.
100	“data type is known to provides”	Replace “provides” with “provide”.
104	“Remark .1.”	Replace “Remark .1.” with “Remark.”.
110	Boyd & Vandenberghe (2004)	Replace “Optimisation” with “Optimization”.
110	Banks (2010)	Replace “Sutona” with “Sutton”.
110	Botev (2010)	Replace “Grotowski” with “Grotowski”.
111	De Boer et al. (2006)	Replace “Milutinoviò” with “Milutinović”.
112	Feller (1940)	Replace “discontinous” with “discontinuous” and “4885–4915” with “488–515”.
113	Gillespie (2001)	Replace “reaction” with “reacting”.
115	Higham (2001)	Replace “ <i>SIAM J. Numer. Anal.</i> ” with “ <i>SIAM Review</i> ”.
115	Kloeden & Platen (1999)	Replace “Nermical” with “Numerical” and “stochatsic” instead of “stochastic”.
119	Rathinam et al. (2003)	Replace “reaction” with “reacting”.
120	Schöberl et al. (2002)	Replace “Schöberl” with “Schoeberl” and “Muller” with “Müller”.
120	Schöberl et al. (2009)	Replace “Schöberl” with “Schoeberl”.