Errata (Updated 27 August 2016)

"Large Deviations and Metastability"

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p. 26, line 5. Replace "$x \in M$" by "$x \in M$ such that $I(x) < +\infty$"

p. 57, display (1.95). There is a redundant condition. Since ν and η are probability measures in S, if $\delta > 0$, then

(i) $\nu(F) \leq \eta(F_{(\delta)}) + \delta$ for all F closed

iff

(ii) $\eta(F) \leq \nu(F_{(\delta)}) + \delta$ for all F closed.

This is a simple exercise. Indeed, if F is closed, also is $S \setminus F_{(\delta)} = \{x : d(x, F) \geq \delta\}$ and $(S \setminus F_{(\delta)})_{(\delta)} \subset S \setminus F$, from which one checks at once that (i) iff (ii).

p. 65, display (2.3). A bad typo here. Replace

$$\text{“}\frac{1}{(2\pi \det \Sigma)^{m/2}} \exp\{-\frac{1}{2}\langle x, \Sigma^{-1} x\rangle\}\ dx.\text{”}$$

by

$$\text{“}\frac{1}{\sqrt{(2\pi)^m \det \Sigma}} \exp\{-\frac{1}{2}\langle x, \Sigma^{-1} x\rangle\}\ dx.\text{”}$$

p. 76, l. 3. "In other words" is a bit misleading here if one is not saying that the η_i variables take values in $\{-1, +1\}$. "Thus" would be best.

p. 218, l. -9; p. 219, l. -12. Replace "chose" by "choose".

p. 224, l. 19. Replace ".)" by ")."

p. 267, l.-3. As it is written the set Γ appears to include two semi-lines that one does not want: $\{(t, 0) : t \geq 0\}$ and $\{t, n) : t \geq k\}$ for some k. The boundary should be taken with the full space being thought as $\mathbb{R} \times [0, n]$. (Thanks do Daniel Valesin.)

* **p. 272, Remark 4.32.** There is a circular argument here: The shorter proof for (i) of Theorem 4.20 discussed in this remark (and which comes from Theorem 3 in [104]) needs the knowledge that $\beta_N / N \to \infty$, and which was previously proved in that article (part (d) of Th 2 or Lemma 6 in [104])); cf also related discussion on p. 274. Instead, the proof of Lemma 4.26 in the book uses Theorem 4.20.

p. 340, Definition 6.5. The set A is assumed to be non-empty and a proper subset of S.

p. 340, l. -2. Replace "))" by ")".

p. 342, l. 5. Replace "$W' \subseteq W$" by "$W' \subsetneq W$".

p. 344, display (6.21). It should read "$\bar{B}(D) = \{z \in \widehat{B}(D)\colon \text{every downhill...in } D\}$".

p. 345, line below display (6.23). It should read "Notice that $C(A)$ is empty if and only if A contains a unique stable plateaux.".

p. 347, Definition 6.20. Set $\Theta(A) = 0$ if A is contained in the basin of an state x.

p. 373, l. 2. Replace $D^-(z)$ by $D(z)$.

p. 409, l.4. In "all minus spins have at least three positive" replace "positive" by "negative".

p. 412, l.-6. Replace "$\forall \zeta \in \omega$" by "$\forall \zeta \in \omega'$" .

p. 421, display (7.31). Replace "$l^* - 1$" by "$l^* - 2$".

p. 422, display (7.37). Replace "$-\epsilon$" by "$+\epsilon$".

p. 424, l. 4. Replace "$\tau_1 < e^{\epsilon\beta}$" by "$\tau_1 - \tau_0 < e^{\epsilon\beta}$".

p. 431, l. 14. Replace "$\tau_1 < e^{\epsilon\beta}$" by "$\tau_1 - \tau_0 < e^{\epsilon\beta}$".

p. 437. The notation "χ_{Γ_0}" might be misleading since it does not fit to what was used in (7.61). We should change that in (7.61), instead.