

Errata (Updated 02 February 2011)
“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. 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. 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 $\beta_N/N \rightarrow \infty$, 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, l. -2: replace “))” by “)”.

p. 344, display (6.21): it should read “ $\bar{B}(D) = \{z \in \hat{B}(D): \text{every downhill...in } D\}$ ”.

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: at “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 “ $-e$ ” by “ $+e$ ”.

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.