

LEVEL SETS AND EXTREMA OF RANDOM PROCESSES AND FIELDS
by Jean-Marc Azaïs and Mario Wschebor. Wiley. **ERRATA** March 2014

page	location	correction
1	L 13	Insert “.” at the end of the line
4		Delmas, 2003 b)
36	(1.22)	Change the point in which formula (1.22) should be broken, passing Y_k to the second line
42	L -11	Replace $Z(t) : t \geq 0$ by $\{Z(t) : t \geq 0\}$
44	L 14	Replace r_{jk}^y by r_{jk}^Y
45	first five lines	have to be replaced by “Replace Σ^X and Σ^Y by $\Sigma^X + \varepsilon I_n$ and $\Sigma^Y + \varepsilon I_n$. It is easy to check that the new Σ_t is now non-singular for any $t \in [0, 1]$. Then pass to the limit in (2.1) as $\varepsilon \rightarrow 0$. This should be done...”
49	L 7-8	Replace “ $f_1 _A \dots f_1(x) \leq \alpha$ ” by “ $f_1 _A \equiv \alpha, f_1 _{A^c} \equiv \delta$ and $\delta \leq f_1(x) \leq \alpha$ ”
61	L 16	Replace “are” by “is”
72	L 13-14	is bounded for $t \in I$ and x in a neighborhood of u and continuous as a function of x , with the possible exception of the n -dyadic points. This implies...
84	L 13	Replace ‘=’ by ‘≤’
88	L 3	(G1)
130	L 9	$Z \cos(\omega t + \theta)$
130	(4.46)	$\int_{\pi}^{T\omega}$
130	L -6	Replace “(A2)” by “(G2)”
130	L -5	Replace “.” at the end by “where we assume $\{t > 0 : \Gamma(t) = 1\}$ is non-empty.”
134	L -3	shift the whole line to the left margin
136	(5.3)	replace “ S_{2M+1} ” by “ S_{2M-1} ”
139	L 8	Replace “ X ” by “ \mathcal{X} ”
139	L 15	insert after “ $t = 2T$ ” the following: “and the paths of the process are \mathcal{C}^∞ (we know that such a version exists)”
139	L -12	Replace “ $\{ t < 2\}$ ” by “ $ t < 2$ ”
144	L -1	$\approx \frac{1}{[2! \cdot 3! \dots (2k-1)!]^2} \left[\prod_{1 \leq i < j \leq k} (t_j - t_i)^8 \right] D_{2k-1}(t^*)$
145	L 7	Replace $P'_m(t; f)$ by $P'_m(t_j; f)$
145	L 10	Replace $Q'_m(t; f)$ by $Q'_m(t_j; f)$
186	(7.1), first line	Replace $\mathbb{E}(\mathbf{1}_{A_x} sX(t) = x)$ by $\mathbb{E}(\mathbf{1}_{A_x} X(t) = x)$
189	L -1	Replace (twice) “ x ” by “ u ”

208	L -10	Replace “ F_M ” by “ $F(x) = \mathbb{P}(M \leq x)$ ”
212	L 13	Replace “As we have seen, this has” by “This has”
214	L -5	Replace “so” by “for”
215	L 1	Replace “holdxs” by “holds”
216	L -5	Replace “ $\lambda \in \mathcal{C}$ ” by “ $\lambda \in \mathcal{C}_{t,j}$ ”
218	L -10	insert after \mathbb{R}^d . the following: Furthermore, we will assume that the function ρ is such that $\rho(\ s - t\ ^2)$ is a covariance for every dimension $d \geq 1$ (See Section 12.4 below for a characterization of these functions).
219	formula (4)	replace '24' by '4'
221	lines 1 to 3	replace by: ... polyhedra, each S_j can be partitioned into a finite number of pieces such that $\hat{\sigma}_j(t)$ is constant in each one of them, so that g_i is equal to the sum of this constants multiplied by the j -dimensional geometric measure of the corresponding pieces.
234	last display	$\exp - \frac{\ x' - m'_{j,N}(t)\ ^2}{2\bar{\lambda}_j(t)}$
235	L 6	$\times \exp \left(- \frac{(x - \kappa_t \ x'\ - m - \mu)^2}{2\sigma_t^2} - \frac{\ x' - m'_{j,N}(t)\ ^2}{2\bar{\lambda}(t)} \right) dx'$
244	L 3	$\text{Var}(X(t)) = 1$, $\text{Var}(X'(t))$ is constant...
	L 4	$\text{Var}(X''(t)) = I_d$
	L 6	$\mathbb{E}(X''_{ij} X''_{kl})$
	L7	add : X''_{ij} stands for $\frac{\partial^2 X(t)}{\partial t_i \partial t_j}$
245	9.1	PARAMETER
247	L 3	$\mathbb{P}\{X(0) > u\}$
247	L 11	the three functions $\mathbb{P}\{M \geq u\}$, $\mathbb{P}\{M > u\}$ and..
254	display (9.10) L 1	$Y(\ell) = u$
254	display (9.10) L 2	$X(t) = u, X_{10}(t) = 0$
254	display (9.10) L 3	replace X_{01} by X_{10}
256	Exercise 9.2	replace $\bar{\Phi}$ by $1 - \Phi$ (twice)
256	Exercise 9.2	replace $T^2 u$ by T^2
268	L -7	Robbins
	L-4	$\sigma^2 = \int_0^m 2\text{Cov}(F(X(0)), F(X(t))) dt$
275	L-4	$\bar{H}_j(X(s)) \bar{H}_k(X'(s))$
276	(10.31)	idem
	(10.32)	$g(X(s))(X'(s))^+ \dots \bar{H}_j(X(s)) \bar{H}_k(X'(s))$
277	L 12	$\bar{H}_j(X(s)) \bar{H}_k(X'(s))$
278	(10.36)	U_u
278	L-1	$2 \int_0^{+\infty} \dots$
279	L 7 and 8	$\frac{1}{\sqrt{T}}$
	L-3	$\sum_{q=1}^Q$
280	(10.39)	$ \Gamma'(s) ^{d_4} ds$
		$\bar{\Gamma}(s) ds$
281	(10.42)	Three closing parentheses missing
281	Step 3	add : As in page 271 we define $\psi(\cdot) = (\mathbf{1}_{[1/4, 1/4]})^{*4}$ and $X^\varepsilon(t)$ using equation (10.23)
283	L3	$\dots d\lambda$
	L-9	$d_{q-k'}(u)$
	L-8	$(const) q^2$
	L-7	$(const) q^2 (const) 2^{-q} \sum_{k=0}^q a_k^2 k! \leq q^2 2^{-q}$
. 302	L -13	Insert “the” between “that” and “distribution”
316	L 12	Replace “ $\delta_{\alpha,\beta}$ ” by “ $\delta_{\alpha\beta}$ ”
342	L -3	Replace “book (1996)” by “books (1990, 1996)”
361	L-8	$\sqrt{2\pi x}$
380	between L16,17	insert the following reference: Girko, V.L. (1990) Theory of Random Determinants. Springer-Verlag.
390	L 2	$\Gamma(t)$ Following the context, Legendre's function or covariance..
391	Index	Bézout
392	Index	Unify Normal Comparison Lemma with Normal comparison lemma