## ERRATA

**p. 3, line 3up**: Change $B(\mathbf{0},2^{-m+1})$ to $\overline{B(\mathbf{0},2^{-m+1})}$

**p. 11, line 12dn**: Change $C_{\mathrm{b}}(\mathbb{R}^N;\mathbb{C})$ to $C^2_{\mathrm{b}}(\mathbb{R}^N;\mathbb{C})$

**p. 19, line 8dn**: Delete $\int[t]$ from this line

**p. 21, line 4up**: Replace by
*Proof.* Observe that $u$ can be replaced by $|u|$ and therefore that one can assume that $u\geq 0$. Set...

**p. 28, line 7up**: Replace $|\mathbf{y}-\mathbf{x}|\leq$ by$|\mathbf{y}-\mathbf{x}|^2\leq$

**p. 33, line 12up**: Replace $2^{\frac{n}{2}-1}$ by $2^{-\frac{n}{2}-1}$

**p. 35, line 7up**: Replace $\|\mathbf{k}-\mathbf{m}\|_\infty=1$ by $\|\mathbf{k}-\mathbf{m}\|_1=1$

**p. 35, lines 3up and 1up**: Replace $(2^{N+1}N)^{\frac{1}{p}}$ by $2^{\frac{N}{p}}$

**p. 35, footnote**: Replace $\|\mathbf{x}\|_\infty=\max_{1\leq j\leq N}|x_j|$ by $\|\mathbf{x}\|_1=\sum_{j=1}^N|x_j|$

**p. 36, lines 5dn and 3up**: Replace $(2^{N+1}N)^{\frac{1}{p}}$ by $2^{\frac{N}{p}}$

**p. 45, line 9dn**: Replace $2^{\frac{n}{2}}$ by $2^{-\frac{n}{2}}$

**p. 53, line 14dn**: Replace $\int_{\mathbb{R}^N}$ by $\int_\Gamma$

**p. 65, lines 8dn–17dn**: Change to
such that

$$\mathfrak{H}:=\big\{(t,\mathbf{y}):\,t\in[0,s]\text{ and }|\mathbf{y}-p(t)|<2r\big\}\subseteq\mathfrak{G},$$

$[s-r,s]\times\overline{B(\mathbf{x},2r)}\subseteq\mathfrak{G}$, $|p(t)-\mathbf{x}|<r$ for $t\in[s-r,s]$,and $u(t,\mathbf{y})\geq u(0,\mathbf{0})+\delta$ for $(t,\mathbf{y})\in[s-r,s]\times\overline{B(\mathbf{x},2r)}$. Next, set

$$\zeta^{\mathfrak{H}}(w)=\inf\big\{t\geq 0:\,\big(t,w(t)\big)\notin\mathfrak{H}\big\}\text{ and }\zeta(w)=\inf\big\{t\geq s-r:\,w(t)\in\overline{B(\mathbf{x},2r)}\big\},$$

and observe that $\|w-p\|_{[0,s]}<r\implies\zeta(w)<\zeta^{\mathfrak{H}}(w)$. Hence, since

$$\begin{aligned}u(0,\mathbf{0})&=\mathbb{E}^{\mathcal{W}}\big[u\big(\zeta\wedge\zeta^{\mathfrak{H}},w(\zeta\wedge\zeta^{\mathfrak{H}})\big)\big]\geq u(0,\mathbf{0})\mathcal{W}(\zeta^{\mathfrak{H}}\leq\zeta)+\big(u(0,\mathbf{0})+\delta\big)\mathcal{W}(\zeta<\zeta^{\mathfrak{H}})\\&=u(0,\mathbf{0})+\delta\mathcal{W}(\zeta<\zeta^{\mathfrak{H}})\end{aligned}$$

and $\mathcal{W}(\zeta<\zeta^{\mathfrak{H}})\geq\mathcal{W}\big(\|w-p\|_{[0,s]}<r\big)>0$, we would have the contradiction that $u(0,\mathbf{0})>u(0,\mathbf{0})$.

**p. 76, lines 7up & 4up; p. 77, 1dn**: Change $I_\sigma$ to $I_{\sigma_n}$

**p. 77, lines 10dn & 11dn**: Change $m<2^n$ to $m<2^nt$

**p. 80, line 7dn**: Change "a is" to "is a"

**p. 80, line 13up**: Change $\mu_t$ to $\mu(t,\cdot)$

**p. 80, line 11up**: Change $\mathbf{1}_{[a,t]}$ to $\mathbf{1}_{[p(a),p(t)]}$

**p. 87, line 9up**: Change $2^{\frac{n}{2}}$ to $2^{-\frac{n}{2}}$

**p. 111, line 13up**: Change $M(\zeta_{m,n})|\geq 2^{-n}$ to $M(\zeta_{m,n+1})|\geq 2^{-n-1}$

**p. 112, line 8dn**: Change $2^{1-2n}$ to $4^{1-n}$

**p. 122, line 2dn**: Change $\sigma(\tau)^\top dA(\tau)\sigma(\tau)$ to $\sigma(\tau)dA(\tau)\sigma(\tau)^\top$

**p. 124, line 6dn**: Change $\nabla_{(2)}\varphi$ to $\nabla^2_{(2)}\varphi$

**p. 128, line 15dn**: Change $\sigma^{-1}\boldsymbol{\xi}$ to $\sigma^{-1}(\tau)\boldsymbol{\xi}$

**p. 133, line 4dn**: Change $d(x(\tau)$ to $dX(\tau)$

**p. 133, line 1up**: After "derivatives," insert "assume that the first derivatives of $\sum_{k=1}^M \mathcal{L}_{V_k}V_k$ are bounded,"

**p. 155, line 9up**: Change $\lfloor\tau\rfloor$ to $\lfloor\tau\rfloor_n$

**p. 166, line 7dn**: Insert "equation" after "stochastic integral" at the end of this line

**p. 166, line 3up**: Change $(x_1^{\mathfrak{e}},\dots,x_m^{\mathfrak{e}})$ to $(x_1^{\mathfrak{e}},\dots,x_N^{\mathfrak{e}})$

**p. 167, line 3up**: Change $\sum_{j=m+1}^M$ to $\sum_{j=m+1}^N$

**p. 168, line 6up**: Change $L=\sum_{j=1}^N$ to $L=\frac{1}{2}\sum_{j=1}^N$

**pp. 168 & 169, lines 4up & 6dn**: Change $=\Delta_M$ to $=\frac{1}{2}\Delta_M$

**p. 180, line 7dn**: Change $(f_\delta+\epsilon)^{\frac{1}{p-1}}$ for $(f_\delta+\epsilon)^{\frac{1}{p}-1}$

**p. 184, line 9dn**: Change $D_h(\tau,x)$ to $D_hX(\tau,x)$

**p. 188, line 4dn**: Insert $dt$ before $\geq$

**p. 190, lines 3 & 4dn**: Change the right hand side of the equation to

$$\mathcal{A}(x_1)^{-1}\begin{pmatrix}\big(D(\varphi\circ X(1,x),DX_1(1,x)\big)_{H^1(\mathbb{R})}\\ \big(D(\varphi\circ X(1,x),DX_2(1,x)\big)_{H^1(\mathbb{R})}\end{pmatrix}$$

**p. 191, line 1up**: Change $e^{\epsilon_m(\alpha k^{2-2m})^{\frac{1}{5}}}$ to $e^{\epsilon_m(\alpha k^{-2m})^{\frac{1}{5}}}$

**p. 192, line 2dn**: Change to

$$\sum_{k=1}^\infty e^{-\epsilon_m(\alpha k^{-2m})^{\frac{1}{5}}}\leq e^{-\epsilon_m\alpha^{\frac{1}{m+5}}}\sum_{k\leq\alpha^{\frac{1}{2m+5}}}e^{-\epsilon_m k^2}+\sum_{k>\alpha^{\frac{1}{2m+5}}}e^{-\epsilon_m k^2}$$

**p. 192, lines 4 & 5 dn**: Change $\frac{1}{m+4}$ to $\frac{1}{m+5}$

**p. 193, line 7up**: Change $\int_s^1$ to $\int_s^1$

**p. 194, lines 1 & 2 dn**: Change $\sum_{k=1}^n$ to $\sum_{k=1}^\infty$

**200, line 4up**: Change $(D\Phi_1,D\Psi_2)^2_{L^2(\mathcal{W};H^1(\mathbb{R}^N))}$ to $(D\Phi_1,D\Psi_2)_{L^2(\mathcal{W};H^1(\mathbb{R}^N))}$