NOTATION

The following notation is frequently used without explanation in the text.

$\bar{A}$ = closure of a subset A (usually in a Euclidean space)

$B \sim A$ = $\{x \in B : x \notin A\}$

χ_A = characteristic function of A

$\underline{\underline{1}}_A$ = identity map $A \to A$

$\mathcal{L}^n$ = Lebesgue measure in $\mathbb{R}^n$

$B_\rho(x)$ = open(*) ball with centre x radius ρ

$\bar{B}_\rho(x)$ = closed ball ;

(If we wish to emphasize that these balls are in the balls in $\mathbb{R}^P$, we write $B^P_\rho(x)$, $\bar{B}^P_\rho(x)$.)

ω_n = $\mathcal{L}^n(B_1(0))$

$\eta_{x,\lambda} : \mathbb{R}^P \to \mathbb{R}^P$

(for $\lambda > 0$, $x \in \mathbb{R}^P$) is defined by $\eta_{x,\lambda}(y) = \lambda^{-1}(y-x)$;
thus $\eta_{x,1}$ is translation $y \mapsto y-x$, and $\eta_{0,\lambda}$ is homothety $y \mapsto \lambda^{-1}y)$

$W \subset\subset U$ (U an open subset of $\mathbb{R}^P$)

shall always mean that W is *open* and $\bar{W}$ is a compact subset of U .

$C^k(U,V)$ (U,V open subsets of finite dimensional vector spaces) denotes the space of C^k maps from U into V .

$C^k_c(U,V) = \{\phi \in C^k(U,V) : \phi$ has compact support$\}$.

(*) In Chapter 1 $B_\rho(x)$ denotes the *closed* ball.

ERRATA

Please send further corrections/comments to:
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p17 line 13 H is a *finite dimensional* Hilbert space

p21 line 9 [RH] should be [Roy]

p33 line 11 η_k converges uniformly to zero on bounded subsets of A.

p51 line -1 "if 9.3 holds" should be "if $\int_M \operatorname{div}_M X = 0$"

p65 line -1 $\delta/2$ should be $\delta/4$.

p70 line -9 "ordered by inclusion" should be "ordered by the relation $R < S \Leftrightarrow R \subset S$ and $\mathcal{H}^n(S \sim R) > 0$".

p87 Note that the Remark 17.9(1) refers to the case $\underline{\underline{H}} \in L^p_{loc}(\mu)$, $p > n$.

p96 line -5 Chapter 10 should be Chapter 8

p127 line 8 $\delta^{3/4}$ in place of $\delta^{1/2}$

line 10 $\delta^{1/2}$ in place of $\delta^{1/4}$

line -5 $\delta^{1/4}$ in place of $\delta^{1/8}$.

p130 line -7 25.1 should be $dx^j(f) = e_j \cdot f$, $f \in C^\infty(U;\mathbb{R}^P)$.

p140 line -8 σ^{-n} should be σ^{-P}.

p143 In Remark 26.28 we must justify that θ_{σ_k} is bounded in $L^1(B)$ for each ball $B \subset\subset U$. Indeed by 6.4 and $\underline{\underline{M}}_B(\partial T) < \infty$, there are constants c_k such that $\theta_{\sigma_k} - c_k$ is bounded in $L^1(B)$, and hence $T_{\sigma_k} - c_k[\![B]\!]$ has bounded mass in B. But $T_{\sigma_k} \rightharpoonup T$ and hence $\{c_k\}$ is bounded.

p149 line 9 $P = n+1$ should be $P = n$.

p171 line -6 $(\partial T)_\rho = (\partial T) \llcorner L_{k-1}(a;\rho)$.

p176 In (31), Q should be (∂Q) in both terms on right side.

p215 line 13 (*) should be $T = \partial[\![E]\!]$

p169 line 1 $\neq$ line 2 unless $k = 2$. But with $L = L_{k-2}(a_F)$, $\operatorname{dist}(y,L)/\operatorname{dist}(x,p_F^{-1}(L)) = |y-a|/|x-a|$ by similarity, and $p_F^{-1}(L) \subset L_{k-1}(a)$, so $|\bar{D}\tilde{\psi}(y)| \le c|x-a|/\operatorname{dist}(x,L_{k-1}(a))$ as required.

p191 In line -2, replace T by $T_{j'}$, where $\{j'\} \subset \{j\}$ and $\rho > 0$ are chosen so that (i) $\eta_{x,\lambda_j \#} T_{j'} \rightharpoonup \theta(x)[\![T_x M]\!]$ (O.K. by (10) and the fact that $T_j \rightharpoonup T$), and so that (ii) lines -4, -5 remain valid with $T_{j'}$ in place of T (O.K. by 28.5(1) and a selection argument as in 10.7(2)).