

# List of Spaces and Norms

---

Space	Norm	Paragraph
$B^{s;p,q}(\Omega)$	$\ \cdot; B^{s;p,q}(\Omega)\ $	7.32
$B^{s;p,q}(\mathbb{R}^n)$	$\ \cdot; B^{s;p,q}(\mathbb{R}^n)\ $	7.67
$\dot{B}^{s;p,q}(\mathbb{R}^n)$		7.68
$C^m(\Omega), C^\infty(\Omega)$		1.26
$C_0(\Omega), C_0^\infty(\Omega)$		1.26
$C^m(\overline{\Omega})$	$\ \cdot; C^m(\overline{\Omega})\ $	1.28
$C^{m,\lambda}(\overline{\Omega})$	$\ \cdot; C^{m,\lambda}(\overline{\Omega})\ $	1.29
$C_B^m(\Omega)$	$\ \cdot; C_B^m(\Omega)\ $	1.27, 4.2
$C^j(\overline{\Omega})$	$\ \cdot; C^j(\overline{\Omega})\ $	4.2
$C^{j,\lambda}(\overline{\Omega})$	$\ \cdot; C^{j,\lambda}(\overline{\Omega})\ $	4.2
$C^{j,\lambda,q}(\overline{\Omega})$	$\ \cdot; C^{j,\lambda,q}(\overline{\Omega})\ $	7.35
$\mathcal{D}(\Omega)$		1.56
$\mathcal{D}'(\Omega)$		1.57
$E_A(\Omega)$	$\ \cdot\ _A = \ \cdot\ _{A,\Omega}$	8.14

$F^{s;p,q}(\Omega)$	$\ \cdot; F^{s;p,q}(\Omega)\ $	7.69
$F^{s;p,q}(\mathbb{R}^n)$	$\ \cdot; F^{s;p,q}(\mathbb{R}^n)\ $	7.65
$\dot{F}^{s;p,q}(\mathbb{R}^n)$		7.66
$H^{m,p}(\Omega)$	$\ \cdot\ _{m,p} = \ \cdot\ _{m,p,\Omega}$	3.2
$L_A(\Omega)$	$\ \cdot\ _A = \ \cdot\ _{A,\Omega}$	8.9
$L^p(\Omega)$	$\ \cdot\ _p = \ \cdot\ _{p,\Omega}$	2.1, 2.3
$L^p(\mathbb{R}^n)$	$\ \cdot\ _p$	2.48
$L^\infty(\Omega)$	$\ \cdot\ _\infty = \ \cdot\ _{\infty,\Omega}$	2.10
$L^q(a,b;d\mu,X)$	$\ \cdot; L^q(a,b;d\mu,X)\ $	7.4
$L_*^q$	$\ \cdot; L_*^q\ $	7.5
$L_{\text{loc}}^1(\Omega)$		1.58
$L^{p,q}(\Omega)$	$\ \cdot; L^{p,q}(\Omega)\ $	7.25
$\ell^p$	$\ \cdot; \ell^p\ $	2.27
$\mathcal{S} = \mathcal{S}(\mathbb{R}^n)$		7.59
weak- $L^p(\Omega)$	$[\cdot]_p = [\cdot]_{p,\Omega}$	2.55
$W^{m,p}(\Omega)$	$\ \cdot\ _{m,p} = \ \cdot\ _{m,p,\Omega}$	3.2
$W_0^{m,p}(\Omega)$	$\ \cdot\ _{m,p} = \ \cdot\ _{m,p,\Omega}$	3.2
$W^{-m,p'}(\Omega)$	$\ \cdot\ _{-m,p'}$	3.12, 3.13
$W^m E_A(\Omega)$	$\ \cdot\ _{m,A} = \ \cdot\ _{m,A,\Omega}$	8.30
$W^m L_A(\Omega)$	$\ \cdot\ _{m,A} = \ \cdot\ _{m,A,\Omega}$	8.30
$W^{s,p}(\Omega)$	$\ \cdot; W^{s,p}(\Omega)\ $	7.57
$W^{s,p}(\mathbb{R}^n)$	$\ \cdot; W^{s,p}(\mathbb{R}^n)\ $	7.64
$X$	$\ \cdot; X\ $	1.7
$X_0 \cap X_1$	$\ \cdot\ _{X_0 \cap X_1}$	7.7
$X_0 + X_1$	$\ \cdot\ _{X_0 + X_1}$	7.7
$(X_0, X_1)_{\theta,q;J}$	$\ \cdot\ _{\theta,q;J}$	7.13
$(X_0, X_1)_{\theta,q;K}$	$\ \cdot\ _{\theta,q;K}$	7.10
$[X_0, X_1]_\theta$	$\ u\ _{[X_0, X_1]_\theta}$	7.51
$X_0^{1-\theta} X_1^\theta$	$\ \cdot; X_0^{1-\theta} X_1^\theta\ $	7.54