

List of Symbols

$E_{\mathbb{R}}, E_{\mathbb{C}}$	real, complex Banach lattice	
E_+	positive cone	
E'	dual	
E^*	semigroup dual	
$E_F^{\mathcal{T}}$	F-product of E with respect to the semigroup \mathcal{T}	
$E_{\mathcal{F}}$	F-product of E	
E_f		see C-I,4
(E, φ)		see C-I,4
$E \otimes F$	tensor product	
$\mathcal{L}(E)$	bounded linear operators on E	
$\mathcal{Z}(E)$	center of E	
E_n	n-th Sobolev space	
$\mathcal{B}(H)$	W*-algebra of all bounded linear operators on H	
$S(M)$	state space of a C*-algebra M	
M_+	positive cone of the C*-algebra M	
M_*	predual	

M^{sa}	self-adjoint part
M_n	C*-algebra of all $n \times n$ -matrices
AC	absolutely continuous functions
BV	functions of bounded variation
K	compact topological space
X	locally compact topological space
$C(K),$	continuous functions (with values
$C(K, E)$	in E)
$C_c(X),$	continuous functions vanishing in
$C_0(X, E)$	infinity with values in E
$C^b(X)$	bounded continuous functions
$C_{ru}(X)$	uniformly continuous functions
$C^n, C^{(n)}$	continuous differentiable func- tions (n-times)
$C_c^\infty(\mathbb{R}^n)$	infinitely differentiable functions with compact support
$L^p(\mu)$	p-integrable functions
$S(\mathbb{R}^n)$	Schwartz space
$M(K)$	regular Borel measures
$M_b(X)$	bounded regular Borel measures
T	= (one-parameter) semigroup
$(T(t))_{t \geq 0}$	
$T $	subspace (reduced) semigroup
$T/$	quotient semigroup
$\text{Fix}(T)$	fixed space of T
A	generator
A'	adjoint

A^*	adjoint generator
$\sigma(A)$	spectrum
$\varrho(A)$	resolvent set
$\sigma_{ess}(A)$	essential spectrum
$\sigma_b(A)$	boundary spectrum
$P_\sigma(A)$	point spectrum
$P_{\sigma_b}(A)$	boundary point spectrum
$A_0(A)$	approximate point spectrum
$R_\sigma(A)$	residual spectrum
ω	= growth bound
$\omega(A)$	=
$\omega(T)$	=
$\omega(T(t))$	
$s(A)$	spectral bound
$\omega_I(A)$	growth bound of the solution of the (ACP)
$\omega(f)$	growth bound of $T(\cdot)f$
$r(T)$	spectral radius
$\omega_{ess}(A)$	essential growth bound
$r_{ess}(T)$	essential spectral radius
$R(\lambda, A)$	resolvent operator
$I^d, \{I^d\}_{d=1}^{dd}$	orthogonal band of I (of I^d)
\wedge	infimum
\vee	supremum
$ T $	modulus of a regular operator
\hat{f}, \check{f}	Fourier (inverse Fourier) transfor- mation

$dp(f)$	subdifferential of p in f	
$dN(f)$	subdifferential of the norm in f	
$dN^+(f)$	subdifferential of the canonical half-norm in f	
im	range	
ker	null-space	
Im	imaginary part	
Re	real part	
Re(f), Im(f)		see C-I,7
ReT, ImT		see C-I,7
\bar{f}	complex conjugate of f	
S_f	signum operator with respect to f	
sign f	signum of f	
sign f		see C-II,2.2
$f^{[n]}$		B-III,2.2 ; C-III,2.1
$ f $	absolute value of f	
f^+	positive part of f	
f^-	negative part of f	
Id	identity operator	
M_p	multiplication operator	
$\mathbb{1}$	function identically 1	
$\mathbb{1}_X$	characteristic function of the set X	
δ_x	Dirac measure in x	
tr	trace	
span M	linear subspace generated by M	
$S(\alpha)$	sector in the complex plane	

(ACP)	abstract Cauchy problem	
(P)	positive minimum principle	
(P')		B-II,1.21
(K)	Kato's (equality) inequality	
(RCP)	retarded Cauchy problem	
(RE)	retarded equation	
(T)	translation property	