Table of Symbols

E_R, E_C	real, complex Banach lattice	
E_+	positive cone	
E'	dual	
E^*	semigroup dual	
E_F^T	F-product of E with respect to the semigroup T	
E_F	F-product of E	
E_f		see C-I,4
(E, ϕ)		see C-I,4
$E \otimes F$	tensor product	
$L(E)$	bounded linear operators on E	
$Z(E)$	center of E	
E_n	n-th Sobolev space	
$B(H)$	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	
$C(K)$, $C(K, E)$	continuous functions (with values in E)	
$C_c(X)$, $C_0(X, E)$	continuous functions vanishing in infinity with values in E	
$C^b(X)$	bounded continuous functions	
$C_{ru}(X)$	uniformly continuous functions	
C^n, $C^{(n)}$	continuous differentiable functions (n-times)	
$C_c^\infty(R^n)$	infinitely differentiable functions with compact support	
$L^p(\mu)$	p-integrable functions	
$S(R^n)$	Schwartz space	
$M(K)$	regular Borel measures	
$M_b(X)$	bounded regular Borel measures	
$T = (T(t))_{t \geq 0}$	(one-parameter) semigroup	
$T\|$	subspace (reduced) semigroup	
$T/$	quotient semigroup	
$\mathrm{Fix}(T)$	fixed space of T	

A	generator
A'	adjoint
A^*	adjoint generator
$\sigma(A)$	spectrum
$\rho(A)$	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	
$\omega = \omega(A) = \omega(T) = \omega(T(t))$	growth bound	
$s(A)$	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) transformation	
$dp(f)$	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	
Ref, Imf		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	
1	function identically 1	
1_C	characteristic function of the set C	
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	