## **Glossary of Symbols**

B(x,r)	ball of radius $r > 0$ centered at $x$	2
$\partial$	boundary	37
С	generic notation for a category	3
$C^{\mathrm{op}}$	opposite category of C	6
CG	category of compactly generated spaces together with continuous maps	111
CGWH	category of compactly generated weakly Hausdorff spaces together with continuous maps; a convenient category of spaces	111
CH	category of compact Hausdorff spaces together with continuous maps	99
$\mathbb{C}$	complex numbers	22
CX	the (reduced) cone of a (pointed) space X	124
$D^n$	closed unit ball in $\mathbb{R}^n$	3
Ø	the empty set	1
<b>→</b>	an epimorphism	14
k	generic notation for a field	5
Fld	category of fields	16
Grp	category of groups	5
Ĵ	shorthand for the adjunct of a map $f$ in some adjunction	92
~	homotopy	34
hTop	homotopy category of spaces	5
$hTop_*$	homotopy category of pointed spaces	121
$\mathbb{Z}$	integers:, $-2$ , $-1$ , $0$ , $1$ , $2$ ,	22
$L \dashv R$	generic notation indicating that the functors $L$ and $R$ form an adjunction	92
$l_p$	for $1 \le p \le \infty$ , the normed vector space of ( $\mathbb{R}$ -valued) sequences which converge in the <i>p</i> -norm	23
$M_f$	mapping cylinder of $f$	130
$\mapsto$	a monomorphism	14