NOTATION INDEX

Symbol	*Description*	*Page*
$\mathrm{Aut}\mathcal{P}(\mathcal{H})$	projective group of automorphisms of $\mathcal{P}(\mathcal{H})$	237
$*$	convolution of measures and functions	125
$\mathrm{b}\mathcal{E}$	bounded measurable functions on E	–
$\mathbf{B}^{\phi}$	bundle associated to a cocycle	246
$\mathbf{C}$	the complex numbers	–
$\mathcal{C}$	a measure class on $(X, \mathcal{X})$	241
$\mathcal{C}_G$	measure class of Haar measure on G	241
χ	a channeling, $\chi \in \mathcal{I}(k)$	88
$D(\chi)$	domain of χ	142
$D_q M$	decomposable descent of kernel M by q	160
$\mathcal{D}$	linear map of measures	194
E	configuration event of observer	23
$\hat{E}$, $\hat{E}^k$	state space of augmented dynamics	147
$\mathcal{E}$	σ-algebra on E	23
$\hat{\mathcal{E}}$	σ-algebra on $\hat{E}$	147
$\mathcal{E}_+$	nonnegative measurable functions on E	–
ϵ_x	Dirac measure on the point x	–
η	interpretation kernel of observer	23
$\mathcal{F}$	σ-algebra on Ω	109
ϕ	a cocycle	241
${}^{\gamma}f$	group element γ acting on function f	220
${}^{\gamma}K$	group element γ acting on kernel K	220
${}^{\gamma}\mu$	group element γ acting on measure μ	220
${}^{(\gamma)}R$	modification of action kernel	223
${}^{(\gamma)}A$	modification of participator	223
G	symmetry group of a symmetric framework	93
Gm	orbit of m under group G	80
G/E	quotient set of G by E	79
$\mathcal{H}$	Hilbert space	231
$\mathbf{H}^1$	collection of all (G, X, M) cohomology classes	242
$h_*\mu$	"pushdown" of measure μ	21
h^*f	"pullback" of function f	171

$h^*\mathcal{V}$	σ-algebra induced by h	159
Id_X	identity map on X	–
$\imath$	identity element of a group	80
$\mathcal{I}(k)$	set of involutions on subsets of k elements	142
J	the symmetry group of E, $J \subset G$	93
$\hat{J}^k$	$J^k \times \mathcal{I}(k)$	169
L	active perspectives in a channeling	87
$L^2(X, m)$	(or $L^2(m)$) square integrable functions	119
m_p^μ	rcpd of μ wrt p, a kernel	22
$M_\nu(A)$	probability measure on $(\Omega, \mathcal{F})$	162
$M_x(A)$	$= M_\nu(A)$ with $\nu(\cdot) = \epsilon_x(\cdot)$	162
$\mathbf{N}$	the natural numbers	–
N_t	markovian kernel, standard dynamics	145
$N_{t,\chi}$	markovian kernel, channeling dependent	143
$N^\dagger$	a kernel, $N^\dagger(e, A) = N(-e, -A)$	125
$\hat{N}$	markovian kernel, augmented dynamics	149
Ω	canonical probability space	109
$\hat{\Omega}$	augmented chain canonical probability space	151
$\otimes$	tensor product	–
1_A	characteristic function of set A	–
$\mathcal{P}(\mathcal{H})$	set of orthogonal projections on $\mathcal{H}$	232
pr_1	projection onto first factor	–
P_n	n-fold product of kernel P with itself	109
$p_*(\mu)$	distribution of p wrt measure μ	21
$p_*^\tau(\hat{N})$	a kernel, the bring down of $\hat{N}$	154
$\prod$	product	–
π	perspective map of observer	23
$\pi\|_E$	restriction of map π to set E	–
Ψ	quantum mechanical wave function	233
$\mathbf{Q}$	the rational numbers	–
$Q(s, \cdot)$	action kernel	140
$\widehat{\langle Q_1, \ldots, Q_k \rangle_\tau}$	one step T.P. for k participators	149
$\mathbf{R}$	the real numbers	–
$R_q M$	respectful descent of kernel M by q	158
S	observation event of observer	23
σ	state of a physical system	232
Σ_m	stabilizer of m	80
$\mathcal{T}_q$	proper time of participator q	121

τ	kernel for channeling probabilities	145
$\theta(A)$	shift operator applied to event A	109
Θ	reflexive framework	–
$\mathcal{U}$	group of unitary automorphisms of $\mathcal{H}$	237
X	configuration space of observer	23
ξ	starting measure of participator	140
Y	observation space of observer	23
$\mathbf{Z}$	the integers	–