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Symbol Index

Symbol	Name and Page
A	set of accessible points, 206
A^∞, A^p	weights, 247
$A(\Omega, \rho)$	ρ-area, 130
$AF(\zeta)$	area function of F, 348
$\alpha_\omega(z)$	lower pointwise dimension, 341
$\beta(\Omega, \zeta_1, \zeta_2)$	β numbers, 290
$\beta_E(z, t)$	362
$\beta_E(aQ)$	363
$\beta^2(E)$	Jones square sum, 367
$\beta_\varphi(t)$	integral means spectrum, 286
B	the set where φ' has nontangential limit zero, 207
$B(t)$	universal integral means spectrum, 286
$B(t)$	Brownian path, 477
$B_b(t)$	bounded universal integral means spectrum, 305
$B(\zeta, \delta)$,$B_\delta(\zeta)$	disc, 14, 48
$\mathcal{B}$	Bloch space, 229
$\mathcal{B}_0$	little Bloch space, 258
$\|\|g\|\|_{\mathcal{B}}$	Bloch norm, 229
BMO	bounded mean oscillation, 34
BMO($\mathcal{M}$)	bounded mean oscillation, 478
$\mathbb{C}$	complex plane
C^α, $C^{k+\alpha}$	Lipschitz class, 52,55,62
$\mathbb{C}^*$	extended plane,
c_U	central point, 350
Cap(E)	logarithmic capacity of a compact set, 74–75 of a Borel set, 85
$\mathcal{C}l(f, \zeta)$	cluster set, 469
$\partial\Omega$	boundary of Ω,
$\delta_{\mathbb{D}}(z_1, z_2)$	pseudohyperbolic metric, 23
$\mathbb{D}$	unit disc, 5
$d_\Omega(E, F)$	extremal distance, 130
$d^*_\Omega(E, F)$	conjugate extremal distance, 131
$d(z)$	distance from z to the boundary, 350
$d_n(E)$	diameter of order n, 466
$d_\infty(E)$	transfinite diameter, 467
$\delta(z_0, E)$	reduced extremal distance, 162
diam	diameter
dim(E)	Hausdorff dimension, 457
dim ω	dimension of harmonic measure, 341
dist(A, B)	euclidean distance, 17
dist$_\Omega(z_1, z_2)$	euclidean distance in Ω, 165
ds	arc length, 129
$\frac{\|dz\|}{1-\|z\|^2}$	hyperbolic metric, 16
$D(u)$	Dirichlet norm, 447
$D(u, v)$	Dirichlet inner product, 447
Δ	Laplacian
E^*	circular projection, 86
$E(f\|\mathcal{N})$	conditional expectation, 470
$\mathcal{F}$	fundamental domain, 345 normal, 417
$\mathcal{G}$	Fuchsian group, 417
$\gamma(E)$	Robin's constant, 74–75
$\gamma_G(E)$	Green capacity, 111
$\Gamma_\alpha(\zeta)$	cone, 6
$\Gamma^h_\alpha(\zeta)$	truncated cone in $\mathbb{D}$, 203
$\Gamma^\varepsilon_\beta(\zeta, \theta)$	truncated cone in $\mathbb{C}$, 173
$\Gamma_\alpha(\zeta, U)$	cone relative to U, 350
$g_\Omega(z, w)$	Green's function with pole at w on a finitely connected domain, 41 on an arbitrary domain, 75
G	the set where a conformal map has non-zero angular derivative, 207

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Symbol	Name and Page
$G_\mu(z)$	Green potential on $\mathbb{H}$, 108
	on $\mathbb{D}$, 111
$h(r)$	measure function, 456
$\mathbb{H}$	upper half-plane, 1
H^∞	bounded analytic functions, 435
H^p	Hardy space, 435
$H^p(U)$	Hardy space on domain U, 349
$I(\nu)$	energy integral, 79
Im	imaginary part
$K = K(\Omega)$	set of cone points, 208
K^*	growth rate of number of bad discs, 288
$\ell(Q)$	length of the base of Q, 31
$\lambda_\Omega(\Gamma)$	extremal length, 130
$\lambda_\Omega(\Gamma)^{-1}$	module, 133
$\lambda(z_0, E)$	146
$\Lambda_2(E)$	two-dimensional Hausdorff measure, 456
$\Lambda_h(E)$	h-Hausdorff measure, 457
$\Lambda_\alpha(E)$	α-dimensional Hausdorff measure, 457
$\lvert\cdot\rvert$	length or absolute value
$\lVert f\rVert_{C^\alpha}$	Lipschitz norm, 52
$Mf(\zeta)$	Hardy–Littlewood maximal function, 9
$\mathcal{M}$	σ-algebra, 470
$\mathcal{M}$	group of self maps of $\mathbb{D}$, 16
$m(\lambda)$	distribution function, 438
mod(Ω)	module of a ring domain, 151
$M(G)$	reduced modulus, 168
$m_h(E)$	dyadic Hausdorff content, 458
$M_h(E)$	Hausdorff content, 456
μ_E	equilibrium distribution,
	on $C^{1+\alpha}$ Jordan curves, 78
	on a compact set, 83
∇	gradient
∇_2	2nd order gradient, 56
$\eta_\Omega(z_\theta, t)$	385
$\lVert\cdot\rVert$	norm
n	unit outer normal, 43
$N(\Omega, \varepsilon, \rho)$	number of bad discs, 281
$\omega(z, E, \mathbb{H})$	harmonic measure in half-plane, 2–4
$\omega(z, E, \mathbb{D})$	harmonic measure in disc, 5
$\omega(z, E, \Omega)$	harmonic measure,
	in a Jordan domain, 13
	in a finitely connected Jordan domain, 39
	in an arbitrary domain, 90
$\omega_f(\delta)$	modulus of continuity, 70

Symbol	Name and Page
Ω_d	doubled Riemann surface, 445
(Ω, E, F)	triple, 484
$\mathcal{P}_f$	Perron solution to the Dirichlet problem, 73
$P_z(t)$	Poisson kernel for $\mathbb{H}$, 4
$P_z(\theta)$	Poisson kernel for $\mathbb{D}$, 5
$P_z(\zeta)$	Poisson kernel for $z \in \Omega$ at $\zeta \in \partial\Omega$, 45
$P_z^*(\theta)$	smallest even decreasing majorant of $P_z(\theta)$, 9
$P_j(\widetilde{u})$	period of $\widetilde{u}$, 443
$\Phi(\alpha)$	universal dimension spectra, 341
$PV\int$	principal value integral, 488
Q	box, 31
$Q_\Omega(w_1, w_2)$	quasihyperbolic distance, 20
$\mathbb{R}$	real numbers, 1
Re	real part
$\rho(z_1, z_2)$	hyperbolic distance in $\mathbb{D}$, 16
$\rho_\Omega(w_1, w_2)$	hyperbolic distance in Ω, 20
ρ	metric, 130
ρ-length	ρ-length, 130
$S(z, w)$	spherical distance, 258
$S_n(f)$	square function, 506
$\mathcal{S}\varphi(z)$	Schwarzian derivative, 380
■	end of the proof
$\mathbb{S}$	standard strip, 176
suppμ	closed support of μ, 96
$T(Q)$	top half of Q, 107
$\theta(x)$	148
Tn(Γ)	tangent points of Γ, 211
$\widetilde{u}$	conjugate function or harmonic conjugate of u, 50
$u_\alpha^*(\zeta)$	nontangential maximal function, 7
u_f	solution to the Dirichlet problem
	on $\mathbb{H}$, 3 (Poisson integral, 4)
	on $\mathbb{D}$, 7 (Poisson integral, 5)
	on a Jordan domain, 13
	on a finitely connected Jordan domain, 38
$U_\mu(z)$	logarithmic potential, 77
VMO	vanishing mean oscillation, 268
VMOA	analytic and vanishing mean oscillation, 268
$(X, \mathcal{M}, P)$	probability space, 470
$(W, \mathcal{M}, P)$	Brownian motion, 477
Z^*	Zygmund class, 56
$\lVert f\rVert_{Z^*}$	Zygmund norm, 56
Z_n	exponential transform, 508
$\emptyset$	empty set

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