

## Symbol index

$(a)_n$	2, 5	$c_j(\beta q)$	187
$(a; q)_n$	3, 6	$c_n(x; a; q)$	202
$(a; q)_\nu$	208	$c_n^\lambda(x; k)$	204
$(a_1, a_2, \dots, a_m; q)_n$	6	$\mathbb{C}$	312
$(a; q)_\infty$	6	$C_N$ (Contour)	126
$(a_1, a_2, \dots, a_m; q)_\infty$	6	$C_{j,k,m,n}$ (Contour)	345
$(a; q, p)_n, (a_1, a_2, \dots, a_m; q, p)_n$	304	$C(\phi)$	265
$(a; p, q)_{r,s}$	112	$\text{Cos}_q(x)$	28
$[a], [a]$	205	$C_q(x; \omega)$	212
$[a]_q$	7	$C_n(x; \beta q)$	31
$[n]_q!$	7	$C_n^\alpha(x; \beta q)$	255
$[a]_{q,n}$	7	$C_n^\lambda(x)$	2
$[a_1, a_2, \dots, a_m]_{q,n}$	7	C.T.	171
$[a; \sigma]$	7	$\mathcal{D}_q$	27
$[n; \sigma]!$	8	$D_q$	197
$[a; \sigma]_n$	8	$D_n(x; \beta q)$	212
$[a; \sigma, \tau]$	17	$r+1e_r$	312
$[n; \sigma, \tau]!$	312	$r.e_s$	316, 319
$[a; \sigma, \tau]_n, [a_1, a_2, \dots, a_m; \sigma, \tau]_n$	312	$e_q(z)$	11
$[a_1, a_2, \dots, a_m; \sigma, \tau]_n$	312	$\exp_q(z)$	12
$a_n(\alpha, \beta q)$	192	$E_q(z)$	11
$A(z)$	185	$E_q^\pm$	197
$b_{k,j}$	195	$r+1E_r$	304
$b(k, n; \beta)$	185	$rE_s$	309
$b_n(\alpha, \beta; q)$	192	$\mathcal{E}_q(x; \alpha)$	12
$B(z)$	189	$\mathcal{E}_q(x; a, b)$	12
$B(\theta)$	265	$\mathcal{E}_q(x, y; \alpha)$	111
$B(x, y)$	23	$F(a, b; c; z)$	2
$B_q(x, y)$	23	$rF_s$	3
$B_n^\lambda(x; k)$	205	$F_1, F_2, F_3$	283
$B_E(\mathbf{t}; q, p)$	344	$F_4$	219, 283
$\text{cos}_q(x)$	28	$F(x, t)$	259
$c_{k,n}$	195	$F(x, y q)$	265
		$F_1(x, y q), F_2(x, y q)$	266

$F_{D,E;F}^{A,B;C}$	283	$L_t(x, y; a, b, c, \alpha, \gamma, M, N; q)$	231
$r g_s$	316, 319	$L_n^\alpha(x)$	4
$r G_r$	309	$L_n^\alpha(x; q)$	210
$r G_s$	310	$M_n(x; a, c; q)$	202
$g_0(a, b, c, d, f)$	159	$M(x, y), M(x, y; a, b, c, c'; q)$	291
$G(x, t)$	260	$p(n)$	239
$G_1(x, y q)$	269	$p_N(n), p_e(n), p_{\text{dist}}(n), p_0(n)$	240
$G_2(x, y q)$	270	$p_{\text{even}}(n), p_{\text{odd}}(n)$	241
$G_t(x; a, b, c, d q)$	262	$p_n(x)$	175
$G_t(x; a, c q)$	264	$p_n(x; \alpha, \beta)$	195
$h(x; a), h(x; a; q)$	154	$p_n(x; a, b; q)$	32, 181
$h(x; a_1, a_2, \dots, a_m)$	154	$p_n(\cos(\theta + \phi); a, b q)$	194
$h(x; a_1, a_2, \dots, a_m; q)$	154	$p_n(x; a, b, c, d q)$	59, 189
$h_n(q), h_n(a, b, c, N; q)$	180	$p_\nu(q^x; a, b; q)$	253
$h_t(a)$	261	$P(z)$	125
$h_n(a, b, c; q)$	182	$P_n(x)$	2
$h_n(a, b, c, d q)$	190	$P_n(x; a, b, c; q)$	182
$h_n(a, b, c, d, f)$	256	$P_n(\mathbf{x} q)$	255
$h_n(\beta q)$	186	$P_n(\mathbf{x}; a, b, c, d, a_2, a_3, \dots, a_s q)$	255
$h_n(x; q)$	209	$P_n^{(\alpha, \beta)}(x)$	2
$H_n(x)$	4	$P_n^{(\alpha, \beta)}(x; q)$	191
$H_n(x q)$	31	$P_n^{(\alpha, \beta)}(x q)$	191
$H_n(x; q)$	209	$P_z(x, y)$	229
$H_t(x), H_t(x; a, b, c, d q)$	263	$P_z(x, y; a, b, c, \alpha, \gamma, K, M, N; q)$	229
$H(x, y, t)$	259	$Q_n(x), Q_n(x; a, b, N; q)$	180
idem ( $b; c$ )	69	$Q_n(x; a, b q)$	273
idem ( $a_1; a_2, \dots, a_{r+1}$ )	121	$Q_n(z; a, b, c, d q)$	189
$I(a, b, c, d)$	156	$r_{2k}(n)$	243
$I_m$	125	$r_n(x; a, b, c, d q), r_n(x)$	224, 265
$J_\alpha(x)$	4	$r_n^\alpha(x), r_n^\alpha(x; a, b, c, d q)$	254
$J_\nu^{(1)}(x; q), J_\nu^{(2)}(x; q), J_\nu^{(3)}(x; q)$	30	$R_N$	333
$J(a, b, c, d, f, g)$	157	$R_n(\mu(x)), R_n(\mu(x); b, c, N; q)$	181
$k_n$	265	$R_m(x), R_m(x; a, b, c, d, f)$	257
$K$ (Contour)	125	$R_{m,j}(z)$	345
$K(x, y, z)$	225	$s_n(x)$	216
$K(x, y, z; \beta q)$	223	$\sin_q(x)$	28
$K_n(x; a, N; q)$	201	$\text{Sin}_q(x)$	28
$K_n(x; a, N q)$	201	$SL(2, \mathbb{Z})$	315
$K_t(x, y)$	227, 261	$S(a, b, c, d, f, g; \lambda, \mu)$	294
$K_t(x, y; \beta q)$	227	$S(\lambda, \mu, \nu, p)$	61
$K_n^{\text{Aff}}(x; a, N; q)$	202	$S_n(x; p, q)$	214
$L_m(a; b, c, d)$	164	$S_n(x), S_n(x; a, b, c, d, f)$	257
$L_t(x, y; \beta q)$	227		

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$S_q(x; \omega)$	212	$\begin{bmatrix} \alpha \\ \beta \end{bmatrix}_{q,p}$	312
${}_r t_s$	7	$\alpha(x)$	175
$\mathbb{T}$	344	$\Gamma(x)$	21
$\mathbb{T}^n$	347	$\Gamma_q(x)$	20, 29
$T_n(x)$	2	$\Gamma(z; q, p)$	311, 338
$T_{n,k}(z)$	345	$\Gamma(z_1, \dots, z_n; q, p)$	345
$U_n(x)$	2	$\tilde{\Gamma}(z; q, p)$	338
$U_n^{(a)}(x; q)$	209	$\delta_{m,n}$	42
$v_n$	176	$\delta_q$	11, 197
${}_{r+1}v_r$	312	$\Delta f(z), \nabla f(z)$	11
$v(x; a, b, c, d, f)$	159	$\Delta u_k$	80
$V(e^{i\theta})$	198	$\Delta_b f(z)$	32
${}_{r+1}V_r$	306	$\Delta(\mathbf{z}), \Delta(\mathbf{z}q^{\mathbf{k}})$	331
$w_j$	175, 179	$\Delta(\mathbf{z}; p), \Delta_n(\mathbf{z}; p)$	333
$w(x)$	175	$\Delta_E(z; \mathbf{t}; q, p)$	344
$w(x; a, b, c, d)$	157	$\Delta_E(z; \mathbf{t})$	345
$w(x; a, b, c, d q)$	190	$\theta(x; p), \theta(x_1, \dots, x_m; p)$	303
$w(\theta; q)$	192	$\vartheta_1(x, q), \vartheta_2(x, q), \vartheta_3(x, q), \vartheta_4(x, q)$	16
$w_k(a, b, c, d q)$	191	$\kappa(a, b, c, d q)$	190
$W(\theta)$	194	$\lambda_j$	180
$W(e^{i\theta}), W(e^{i\theta}, a, b, c, d q)$	198	$\lambda_{\mathbf{n}}(q)$	156
$W_\beta(x q)$	185	$\lambda_{\mathbf{n}}(a, b, c, d, a_2, a_3, \dots, a_s q)$	156
$W_n(x; b, q)$	214	$\mu(x)$	181
$W_n(x; q), W_n(x; a, b, c, N; q)$	59, 180	$\nu_n$	269
${}_{r+1}W_r$	39	$\pi_n$	270
$x_+$	114	$\rho(x; q), \rho(x; a, b, c, N; q)$	180
$\mathbf{z}, \mathbf{z}q^{\mathbf{k}}$	331	$\rho_n(a, b q)$	194
$\mathbb{Z}$	312	$\rho(\mathbf{x} q)$	156
$2\mathbb{Z}$	320	$\rho(\mathbf{x}; a, b, c, d, a_2, a_3, \dots, a_s q)$	156
$\mathbb{Z} + \tau\mathbb{Z}$	312	$\phi(a, b; c; q, z)$	3
$\int f(t) d_q t$	23	${}_2\phi_1(a, b; c; q, z)$	3
$f(n) \sim g(n)$	185	${}_r\phi_s$	4
$\sum_{k=m}^n a_k$	81	$\Phi[\dots]$	95
$\prod_{k=m}^n a_k$	325	$\Phi^{(1)}, \Phi^{(2)}, \Phi^{(3)}, \Phi^{(4)}$	283
$\begin{bmatrix} n \\ k \end{bmatrix}_q, \begin{bmatrix} \alpha \\ \beta \end{bmatrix}_q$	24	$\Phi_1(\alpha; \beta, \beta'; \gamma; q; x, y)$	294
$\begin{bmatrix} n \\ k_1, \dots, k_m \end{bmatrix}_q$	25	$\Phi_D(a; b_1, \dots, b_r; c; q; x_1, \dots, x_r)$	300
$\begin{bmatrix} n \\ k \end{bmatrix}_{q,p}, \begin{bmatrix} \alpha \\ k \end{bmatrix}_{q,p}$	311	$\Phi_{D:E:F}^{A:B:C}$	283
		${}_r\psi_s$	137
		${}_{r-1}\omega_{r-2}$	315

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