RFC: DLMF Content Dictionaries
Work in Progress

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1 Overview

This document presents a draft list of 'virtual' Content Dictionaries and symbols derived from the 'semantic macros' in use by the Digital Library of Mathematical Functions project.

Cataloging these functions is also intended to support the Special Function Concordance effort of the World Digital Mathematics Library (See `https://www.mathunion.org/ceic/library/world-digital-mathematics-library-wdml`).

Note that the naming conventions and partitioning of symbols into dictionaries are still evolving, with the goal of being self-consistent and consistent with the OpenMath conventions (such as they are). Not all symbols have been classified, and certainly not all are 'Special Functions.'

The Content Dictionaries marked as 'official' or 'experimental' are currently listed in the OpenMath, although we have not yet validated that the definitions are identical.

The Content Dictionaries marked as 'proposed' are those we ultimately wish to propose to OpenMath; those marked 'speculative' perhaps, as well. We anticipate that future work will generate proper `XML` content dictionaries and establish function signatures.

Please send any comments to `mailto:bruce.miller@nist.gov`; they would be greatly appreciated.

A Macros sorted by Content Dictionary

CD:Name	Notation	Signature	Declared	Proper Name
DLMF_AI.ocd		**Airy and Related Functions**		
AiryAi ($\stackrel{?}{\equiv}$airy:Ai)				
	$\mathrm{Ai}(z)$	$\mathbb{C} \to \mathbb{C}$	§9.2(i)	the Airy function Ai
AiryBi ($\stackrel{?}{\equiv}$airy:Bi)				
	$\mathrm{Bi}(z)$	"	"	the Airy function Bi
ScorerGi				
	$\mathrm{Gi}(z)$	"	(9.12.4)	the Scorer (or inhomogeneous Airy) function Gi
ScorerHi				
	$\mathrm{Hi}(z)$	"	(9.12.5)	the Scorer (or inhomogeneous Airy) function Hi
DLMF_AI_gen.ocd		**Airy and Related Functions – Generalizations**		
genAiryODEA				
	$A_n(z)$	$\mathbb{Z}^+ \times \mathbb{C} \to \mathbb{C}$	§9.13(i)	the generalized Airy function (ODE) A_n
genAiryODEB				
	$B_n(z)$	"	"	the generalized Airy function (ODE) B_n
genAiryintA				
	$A_k(z,p)$	$\mathbb{Z}^+ \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	§9.13(ii)	the generalized Airy function (integral) A_k
genAiryintB				
	$B_k(z,p)$	"	"	the generalized Airy function (integral) B_k
DLMF_AI_mag.ocd		**Airy and Related Functions – Magnitudes, Phases**		
AirymodM				
	$M(x)$	$\mathbb{R} \to \mathbb{R}$	(9.8.3)	the modulus of Airy functions
AirymodderivN				
	$N(x)$	"	(9.8.7)	the modulus of derivatives of Airy functions
Airyphasederivphi				
	$\phi(x)$	"	(9.8.8)	the phase of derivatives of Airy functions
Airyphasetheta				
	$\theta(x)$	"	(9.8.4)	the phase of Airy functions
envAiryAi				
	$\mathrm{envAi}(x)$	"	§2.8(iii)	the envelope of the Airy function Ai
envAiryBi				
	$\mathrm{envBi}(x)$	"	"	the envelope of the Airy function Bi
DLMF_AI_z.ocd		**Airy and Related Functions – Zeros**		
zAirya	a_k	$\mathbb{Z}^+ \to \mathbb{R}$	§9.9(i)	the k^{th} zero of Airy Ai
zAiryb	b_k	"	"	the k^{th} zero of Airy Bi
zAirybeta				
	β_k	$\mathbb{Z}^+ \to \mathbb{C}$	§9.9(i)	the k^{th} complex zero of Airy Bi
zderivAirya				
	a'_k	$\mathbb{Z}^+ \to \mathbb{R}$	§9.9(i)	the k^{th} zero of Airy Ai′
zderivAiryb				
	b'_k	"	"	the k^{th} zero of Airy Bi′

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CD:Name	Notation	Signature	Declared	Proper Name
zderivAirybeta				
	β'_k	$\mathbb{Z}^+ \to \mathbb{C}$	§9.9(i)	the k^{th} complex zero of Airy Bi'
DLMF_BP.ocd	**Bernoulli and Euler Polynomials**			
BernoullinumberB				
	B_n	$\mathbb{Z}^* \to \mathbb{Q}$	§24.2(i)	the Bernoulli number
BernoullipolyB				
	$B_n(x)$	$\mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	"	the Bernoulli polynomial
EulernumberE				
	E_n	$\mathbb{Z}^* \to \mathbb{Z}$	§24.2(ii)	the Euler number
EulerpolyE				
	$E_n(x)$	$\mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	"	the Euler polynomial
DLMF_BP_gen.ocd	**Bernoulli and Euler Polynomials – Generalizations**			
genBernoullipolyB				
	$B_n^{(\ell)}(x)$	$\mathbb{Z} \times \mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	§24.16	the generalized Bernoulli polynomial
genEulerpolyE				
	$E_n^{(\ell)}(x)$	"	"	the generalized Euler polynomial
DLMF_BP_per.ocd	**Bernoulli and Euler Polynomials – Periodic**			
perBernoulliB				
	$\widetilde{B}_n(x)$	$\mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	§24.2(iii)	the periodic Bernoulli function
perEulerE				
	$\widetilde{E}_n(x)$	"	"	the periodic Euler function
DLMF_BP_q.ocd	**Bernoulli and Euler Polynomials – q-analogues**			
qBernoullipolybeta				
	$\beta_n(x,q)$	$\mathbb{Z}^* \times \mathbb{R} \times \mathbb{D} \to \mathbb{C}$	(17.3.7)	the q-Bernoulli polynomial
qEulernumberA				
	$A_{m,s}(q)$	$\mathbb{Z}^* \times \mathbb{Z}^* \times \mathbb{D} \to \mathbb{C}$	(17.3.8)	the q-Euler number
DLMF_BS.ocd	**Bessel Functions**			
BesselJ	$J_\nu(z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(10.2.2)	the Bessel function of the first kind
BesselY	$Y_\nu(z)$	"	(10.2.3)	the Bessel function of the second kind
HankelH1				
	$H_\nu^{(1)}(z)$	"	(10.2.5)	the Hankel function of the first kind(or Bessel function of the third kind)
HankelH2				
	$H_\nu^{(2)}(z)$	"	(10.2.6)	the Hankel function of the second kind(or Bessel function of the third kind)
DLMF_BS_Kelvin.ocd	**Bessel Functions – Kelvin**			
Kelvinbei				
	$\mathrm{bei}_\nu(x)$	$\mathbb{R} \times \mathbb{R} \to \mathbb{C}$	(10.61.1)	the Kelvin function bei_ν
Kelvinber				
	$\mathrm{ber}_\nu(x)$	"	"	the Kelvin function ber_ν
Kelvinkei				
	$\mathrm{kei}_\nu(x)$	"	(10.61.2)	the Kelvin function kei_ν
Kelvinker				
	$\mathrm{ker}_\nu(x)$	"	"	the Kelvin function ker_ν
DLMF_BS_aux.ocd	**Bessel Functions – Auxiliary**			
BesselJimag				
	$\widetilde{J}_\nu(x)$	$\mathbb{R} \times \mathbb{R} \to \mathbb{R}$	§10.24	the Bessel function of the first kind of imaginary order

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CD:Name	Notation	Signature	Declared	Proper Name
BesselYimag				
	$\widetilde{Y}_\nu(x)$	"	§10.24	the Bessel function of the second kind of imaginary order
BickleyKi				
	$\mathrm{Ki}_\alpha(x)$	$\mathbb{C}\times\mathbb{R}\to\mathbb{C}$	(10.43.11)	the Bickley function
NeumannpolyQ				
	$O_n(x)$	$\mathbb{Z}^+\times\mathbb{R}\to\mathbb{R}$	(10.23.12)	Neumann's polynomial
Rayleighsigma				
	$\sigma_n(\nu)$	"	(10.21.55)	the Rayleigh function
modBesselIimag				
	$\widetilde{I}_\nu(x)$	$\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(10.45.2)	the modified Bessel function of the first kind of imaginary order
modBesselKimag				
	$\widetilde{K}_\nu(x)$	"	"	the modified Bessel function of the second kind of imaginary order
DLMF_BS_gen.ocd		**Bessel Functions – Generalizations**		
MittagLefflerE				
	$E_{a,b}(z)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(10.46.3)	the Mittag-Leffler function
genBesselphi				
	$\phi(\rho,\beta;z)$	"	(10.46.1)	the generalized Bessel function
DLMF_BS_mag.ocd		**Bessel Functions – Magnitudes, Phases**		
BesselC	$\mathscr{C}_\nu(z)$	$\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§10.2	the Bessel cylinder function
HankelmodM				
	$M_\nu(x)$	$\mathbb{C}\times\mathbb{R}\to\mathbb{R}$	(10.18.1)	the modulus of the Hankel function of the first kind
HankelmodderivN				
	$N_\nu(x)$	"	(10.18.2)	the modulus of derivatives of the Hankel function of the first kind
Hankelphasederivphi				
	$\phi_\nu(x)$	"	(10.18.3)	the phase of derivatives of the Hankel function of the first kind
Hankelphasetheta				
	$\theta_\nu(x)$	"	"	the phase of the Hankel function of the first kind
envBesselJ				
	$\mathrm{env}J_\nu(x)$	"	§2.8(iv)	the envelope of the Bessel function J_ν
envBesselY				
	$\mathrm{env}Y_\nu(x)$	"	"	the envelope of the Bessel function Y_ν
DLMF_BS_mat.ocd		**Bessel Functions – Matrix arguments**		
BesselAmat				
	$A_\nu(\mathbf{T})$	$\mathbb{C}\times\mathbb{R}^{\bullet\times\bullet}\to\mathbb{C}$	§35.5(i)	the Bessel function of matrix argument (first kind)
BesselBmat				
	$B_\nu(\mathbf{T})$	"	(35.5.3)	the Bessel function of matrix argument (second kind)
DLMF_BS_mod.ocd		**Bessel Functions – Modified**		
modBesselI				
	$I_\nu(z)$	$\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(10.25.2)	the modified Bessel function of the first kind

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CD:Name	Notation	Signature	Declared	Proper Name
modBesselK				
	$K_\nu(z)$	"	(10.25.3)	the modified Bessel function of the second kind
modcylinder				
	$\mathscr{Z}_\nu(z)$	"	§10.25	the modified cylinder function
DLMF_BS_modsph.ocd	**Bessel Functions – Modified Spherical**			
modsphBesselK				
	$\mathsf{k}_n(z)$	$\mathbb{Z}^* \times \mathbb{C} \to \mathbb{C}$	(10.47.9)	the modified spherical Bessel function k_n
modsphBesseli1				
	$\mathsf{i}^{(1)}_n(z)$	"	(10.47.7)	the modified spherical Bessel function $\mathsf{i}^{(1)}_n$
modsphBesseli2				
	$\mathsf{i}^{(2)}_n(z)$	"	(10.47.8)	the modified spherical Bessel function $\mathsf{i}^{(2)}_n$
DLMF_BS_sph.ocd	**Bessel Functions – Spherical**			
sphBesselJ				
	$\mathsf{j}_n(z)$	$\mathbb{Z}^* \times \mathbb{C} \to \mathbb{C}$	(10.47.3)	the spherical Bessel function of the first kind
sphBesselY				
	$\mathsf{y}_n(z)$	"	(10.47.4)	the spherical Bessel function of the second kind
sphHankel2				
	$\mathsf{h}^{(2)}_n(z)$	"	(10.47.6)	the spherical Hankel function of the second kind
sphHankelh1				
	$\mathsf{h}^{(1)}_n(z)$	"	(10.47.5)	the spherical Hankel function of the first kind
DLMF_BS_z.ocd	**Bessel Functions – Zeros**			
zBesselj				
	$j_{\nu,m}$	$\mathbb{R} \times \mathbb{Z}^+ \to \mathbb{R}$	§10.21(i)	the m^{th} zero of the Bessel function of the first kind J_ν
zBessely				
	$y_{\nu,m}$	"	"	the m^{th} zero of the Bessel function of the second kind Y_ν
zderivBesselj				
	$j'_{\nu,m}$	"	"	the m^{th} zero of the derivative of the Bessel function of the first kind J'_ν
zderivBessely				
	$y'_{\nu,m}$	"	"	the m^{th} zero of the derivative of the Bessel function of the second kind Y'_ν
DLMF_CH.ocd	**Confluent Hypergeometric Functions**			
KummerconfhyperM ($\overset{?}{\equiv}$hypergeo1:hypergeometric1F1)				
	$M(a,b,z)$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(13.2.2)	the Kummer confluent hypergeometric function M
KummerconfhyperU				
	$U(a,b,z)$	"	(13.2.6)	the Kummer confluent hypergeometric function U
OlverconfhyperM				
	$\mathbf{M}(a,b,z)$	"	(13.2.3)	Olver's confluent hypergeometric function

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CD:Name	*Notation*	*Signature*	*Declared*	*Proper Name*
WhittakerconfhyperM				
	$M_{\kappa,\mu}(z)$	"	(13.14.2)	the Whittaker confluent hypergeometric function $M_{\kappa,\mu}$
WhittakerconfhyperW				
	$W_{\kappa,\mu}(z)$	"	(13.14.3)	the Whittaker confluent hypergeometric function $W_{\kappa,\mu}$
DLMF_CH_mat.ocd	**Confluent Hypergeometric Functions – Matrix arguments**			
genhyperPsimat				
	$\Psi(a; b; \mathbf{T})$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C}^{\bullet\times\bullet} \to \mathbb{C}$	(35.6.2)	the confluent hypergeometric function of matrix argument (second kind)
DLMF_CH_q.ocd	**Confluent Hypergeometric Functions – q-analogues**			
qPochhammer				
	$(a; q)_n$	$\mathbb{C} \times \mathbb{D} \times \mathbb{Z}^* \to \mathbb{C}$	§17.2(i)	the q-Pochhammer symbol (or q-shifted factorial)
qmultiPochhammersym				
	$(a_1, a_2, \ldots, a_k; q)_n$	$\mathbb{C}^\bullet \times \mathbb{D} \times \mathbb{Z}^* \to \mathbb{C}$	"	the q-multiple Pochhammer symbol
DLMF_CM.ocd	**Combinatorial Analysis**			
Bellnumber ($\stackrel{?}{\equiv}$combinat1:Bell)				
	$B(n)$	$\mathbb{Z} \to \mathbb{Z}$	§26.7(i)	the Bell number
Catalannumber				
	$C(n)$	"	(26.5.1)	the Catalan number
Euleriannumber				
	$\left\langle {n \atop k} \right\rangle$	$\mathbb{Z} \times \mathbb{Z} \to \mathbb{Z}$	§26.14(i)	the Eulerian number
LeviCivitasym				
	ϵ_{ijk}	$\mathbb{Z} \times \mathbb{Z} \times \mathbb{Z} \to \{0, \pm 1\}$	(1.6.14)	the Levi-Civita symbol
Pochhammersym ($\stackrel{?}{\equiv}$hypergeo0:pochhammer)				
	$(a)_n$	$\mathbb{C} \times \mathbb{Z}^* \to \mathbb{C}$	§5.2(iii)	the Pochhammer symbol (or shifted factorial)
StirlingnumberS ($\stackrel{?}{\equiv}$combinat1:Stirling_S)				
	$S(n, k)$	$\mathbb{Z} \times \mathbb{Z} \to \mathbb{Z}$	§26.8(i)	the Stirling number of the second kind
Stirlingnumbers ($\stackrel{?}{\equiv}$combinat1:Stirling_s)				
	$s(n, k)$	"	§26.8(i)	the Stirling number of the first kind
binom ($\stackrel{?}{\equiv}$combinat1:binomial)				
	$\binom{z}{m}$	$\mathbb{C} \times \mathbb{Z} \to \mathbb{C}$	§1.2(i)	the binomial coefficient
multinomial ($\stackrel{?}{\equiv}$combinat1:multinomial)				
	$\binom{n}{n_1, n_2, \ldots, n_k}$	$\mathbb{Z} \times \mathbb{Z}^\bullet \to \mathbb{Z}$	§26.4(i)	the multinomial coefficient
ncompositions				
	$c(n)$	$\mathbb{Z} \to \mathbb{Z}$	§26.11	the number of compositions of n
	$c_m(n)$	$\mathbb{Z} \times \mathbb{Z} \to \mathbb{Z}$		the number of compositions of n into exactly m parts
npartitions				
	$p(n)$		§26.2	the total number of partitions of n
	$p_m(n)$	$\mathbb{Z} \times \mathbb{Z} \to \mathbb{Z}$	§26.9(i)	the total number of partitions of n into at most m parts
npermutations				
	$\mathfrak{S}_n$	$\mathbb{Z} \to \mathbb{Z}$	§26.13	the number of permutations of n
nplanepartitions				
	$\mathrm{pp}(n)$	"	§26.12(i)	the number of plane partitions of n

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CD:Name	*Notation*	*Signature*	*Declared*	*Proper Name*
`nrestcompositions`	$c(\text{condition}, n)$	$C \to \mathbb{Z}$ where C is a condition, see text	§26.11	the restricted number of compositions of n into exactly m parts
`nrestpartitions`	$p(\text{condition}, n)$	"	§26.10(i)	the restricted number of partitions of n
	$p_m(\text{condition}, n)$	$\mathbb{Z} \times C \to \mathbb{Z}$ where C is a condition, see text	§26.9(i)	the restricted number of partitions of n into at most m parts
`DLMF_CM_q.ocd`	**Combinatorial Analysis – q-analogues**			
`idem`	$\mathrm{idem}(\chi_1; \chi_2 \ldots \chi_n)$		§17.1	the idem function
`qStirlingnumbera`	$a_{m,s}(q)$	$\mathbb{Z}^* \times \mathbb{Z}^* \times \mathbb{D} \to \mathbb{C}$	(17.3.9)	the q-Stirling number
`qbinom`	$\begin{bmatrix} n \\ m \end{bmatrix}_q$	"	(17.2.27)	the q-binomial coefficient
`qfactorial`	$n!_q$	$\mathbb{Z}^* \times \mathbb{D} \to \mathbb{C}$	(5.18.2)	the q-factorial
`qmultinomial`	$\begin{bmatrix} n \\ n_1, n_2, \ldots, n_k \end{bmatrix}_q$	$\mathbb{Z}^* \times \mathbb{Z}^{*\bullet} \times \mathbb{D} \to \mathbb{C}$	§26.16	the q-multinomial coefficient
`DLMF_CW.ocd`	**Coulomb Functions**			
`irregCoulombG`	$G_\ell(\eta, \rho)$	$\mathbb{Z}^* \times \mathbb{R} \times \mathbb{R} \to \mathbb{C}$	(33.2.11)	the irregular Coulomb (radial) function (for repulsive interactions) G_ℓ
`irregCoulombH`	$H^{\pm}_\ell(\eta, \rho)$	$\{\pm\} \times \mathbb{Z}^* \times \mathbb{R} \times \mathbb{R} \to \mathbb{C}$	(33.2.7)	the irregular Coulomb (radial) function (for repulsive interactions) $H^{\pm}_\ell$
`irregCoulombc`	$c(\epsilon, \ell; r)$	$\mathbb{R} \times \mathbb{Z}^* \times \mathbb{R} \to \mathbb{C}$	(33.14.9)	the irregular Coulomb (radial) function (for attractive interactions) c
`irregCoulombh`	$h(\epsilon, \ell; r)$	"	(33.14.7)	the irregular Coulomb (radial) function (for attractive interactions) h
`regCoulombF`	$F_\ell(\eta, \rho)$	$\mathbb{Z}^* \times \mathbb{R} \times \mathbb{R} \to \mathbb{C}$	(33.2.3)	the regular Coulomb (radial) function (for repulsive interactions) F_ℓ
`regCoulombf`	$f(\epsilon, \ell; r)$	$\mathbb{R} \times \mathbb{Z}^* \times \mathbb{R} \to \mathbb{C}$	(33.14.4)	the regular Coulomb (radial) function (for attractive interactions) f
`regCoulombs`	$s(\epsilon, \ell; r)$	"	(33.14.9)	the regular Coulomb (radial) function (for attractive interactions) s
`DLMF_CW_mag.ocd`	**Coulomb Functions – Magnitudes, Phases**			
`Coulombphasesigma`	$\sigma_\ell(\eta)$	$\mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	(33.2.10)	the phase shift of the irregular Coulomb function $H^{\pm}_\ell$
`Coulombphasetheta`	$\theta_\ell(\eta, \rho)$	$\mathbb{Z}^* \times \mathbb{R} \times \mathbb{R} \to \mathbb{R}$	(33.2.9)	the phase of the irregular Coulomb function $H^{\pm}_\ell$

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CD:Name	*Notation*	*Signature*	*Declared*	*Proper Name*
`Coulombturnr`				
	$r_{\mathrm{tp}}(\epsilon,\ell)$	$\mathbb{R}\times\mathbb{Z}^{*}\to\mathbb{R}$	(33.14.3)	the outer turning point for Coulomb (radial) functions (for repulsive interactions)
`Coulombturnrho`				
	$\rho_{\mathrm{tp}}(\eta,\ell)$	"	(33.2.2)	the outer turning point for Coulomb (radial) functions (for attractive interactions)
`envCoulombM`				
	$M_{\ell}(\eta,\rho)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(33.3.1)	the envelope of the Coulomb functions (for repulsive interactions)
`normCoulombC`				
	$C_{\ell}(\eta)$	$\mathbb{Z}^{*}\times\mathbb{R}\to\mathbb{R}$	(33.2.5)	the normalizing constant for Coulomb (radial) function
`DLMF_EF.ocd`		**Elementary Functions**		
`Gudermannian`				
	$\mathrm{gd}(z)$	$\mathbb{C}\to\mathbb{C}$	(4.23.39)	the Gudermannian function
`aGudermannian`				
	$\mathrm{gd}^{-1}(z)$	"	(4.23.41)	the inverse of the Gudermannian function
`acos` ($\stackrel{?}{\equiv}$`transc1:arccos`)				
	$\arccos(z)$	"	§4.23(ii)	the inverse of the cosine function
`acosh` ($\stackrel{?}{\equiv}$`transc1:arccosh`)				
	$\operatorname{arccosh}(z)$	"	§4.37(ii)	the inverse of the hyperbolic cosine function
`acot` ($\stackrel{?}{\equiv}$`transc1:arccot`)				
	$\operatorname{arccot}(z)$	"	(4.23.9)	the inverse of the cotangent function
`acoth` ($\stackrel{?}{\equiv}$`transc1:arccoth`)				
	$\operatorname{arccoth}(z)$	"	(4.37.9)	the inverse of the hyperbolic cotangent function
`acsc` ($\stackrel{?}{\equiv}$`transc1:arccsc`)				
	$\operatorname{arccsc}(z)$	"	(4.23.7)	the inverse of the cosecant function
`acsch` ($\stackrel{?}{\equiv}$`transc1:arcsch`)				
	$\operatorname{arccsch}(z)$	"	(4.37.7)	the inverse of the hyperbolic cosecant function
`asec` ($\stackrel{?}{\equiv}$`transc1:arcsec`)				
	$\operatorname{arcsec}(z)$	"	(4.23.8)	the inverse of the secant function
`asech` ($\stackrel{?}{\equiv}$`transc1:arcsech`)				
	$\operatorname{arcsech}(z)$	"	(4.37.8)	the inverse of the hyperbolic secant function
`asin` ($\stackrel{?}{\equiv}$`transc1:arcsin`)				
	$\arcsin(z)$	"	§4.23(ii)	the inverse of the sine function
`asinh` ($\stackrel{?}{\equiv}$`transc1:arcsinh`)				
	$\operatorname{arcsinh}(z)$	"	§4.37(ii)	the inverse of the hyperbolic sine function
`atan` ($\stackrel{?}{\equiv}$`transc1:arctan`)				
	$\arctan(z)$	"	§4.23(ii)	the inverse of the tangent function
`atanh` ($\stackrel{?}{\equiv}$`transc1:arctanh`)				
	$\operatorname{arctanh}(z)$	"	§4.37(ii)	the inverse of the hyperbolic tangent function
`DLMF_EF_lambert.ocd`		**Elementary Functions – lambert**		
`LambertW`				

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CD:Name	*Notation*	*Signature*	*Declared*	*Proper Name*
	$W(x)$	$\mathbb{R} \to \mathbb{R}$	(4.13.1)	the Lambert W-function
`LambertWm`				
	$\mathrm{Wm}(x)$	"	§4.13	the non-principal branch of the Lambert W-function
`LambertWp`				
	$\mathrm{Wp}(x)$	"	"	the principal branch of the Lambert W-function
`DLMF_EF_mv.ocd`	**Elementary Functions – mv**			
`Acos` ($\stackrel{?}{\equiv}$`transc3:arccos`)				
	$\mathrm{Arccos}(z)$	$\mathbb{C} \to \mathbb{C}$	(4.23.2)	the multivalued inverse of the cosine function
`Acosh` ($\stackrel{?}{\equiv}$`transc3:arccosh`)				
	$\mathrm{Arccosh}(z)$	"	(4.37.2)	the multivalued inverse of the hyperbolic cosine function
`Acot` ($\stackrel{?}{\equiv}$`transc3:arccot`)				
	$\mathrm{Arccot}(z)$	"	(4.23.6)	the multivalued inverse of the cotangent function
`Acoth` ($\stackrel{?}{\equiv}$`transc3:arccoth`)				
	$\mathrm{Arccoth}(z)$	"	(4.37.6)	the multivalued inverse of the hyperbolic cotangent function
`Acsc` ($\stackrel{?}{\equiv}$`transc3:arccsc`)				
	$\mathrm{Arccsc}(z)$	"	(4.23.4)	the multivalued inverse of the cosecant function
`Acsch` ($\stackrel{?}{\equiv}$`transc3:arccsch`)				
	$\mathrm{Arccsch}(z)$	"	(4.37.4)	the multivalued inverse of the hyperbolic cosecant function
`Asec` ($\stackrel{?}{\equiv}$`transc3:arccsc`)				
	$\mathrm{Arcsec}(z)$	"	(4.23.5)	the multivalued inverse of the secant function
`Asech` ($\stackrel{?}{\equiv}$`transc3:arcsech`)				
	$\mathrm{Arcsech}(z)$	"	(4.37.5)	the multivalued inverse of the hyperbolic secant function
`Asin` ($\stackrel{?}{\equiv}$`transc3:arcsin`)				
	$\mathrm{Arcsin}(z)$	"	(4.23.1)	the multivalued inverse of the sine function
`Asinh` ($\stackrel{?}{\equiv}$`transc3:arcsinh`)				
	$\mathrm{Arcsinh}(z)$	"	(4.37.1)	the multivalued inverse of the hyperbolic sine function
`Atan` ($\stackrel{?}{\equiv}$`transc3:arctan`)				
	$\mathrm{Arctan}(z)$	"	(4.23.3)	the multivalued inverse of the tangent function
`Atanh` ($\stackrel{?}{\equiv}$`transc3:arctanh`)				
	$\mathrm{Arctanh}(z)$	"	(4.37.3)	the multivalued inverse of the hyperbolic tangent function
`Ln` ($\stackrel{?}{\equiv}$`transc3:ln`)				
	$\mathrm{Ln}(z)$	"	(4.2.1)	the multivalued logarithm function
`DLMF_EF_q.ocd`	**Elementary Functions – q-analogues**			
`qCos`	$\mathrm{Cos}_q(x)$	$\mathbb{D} \times \mathbb{R} \to \mathbb{C}$	(17.3.6)	the q-cosine function Cos_q
`qExp`	$E_q(x)$	"	(17.3.2)	the q-exponential function E_q
`qSin`	$\mathrm{Sin}_q(x)$	"	(17.3.4)	the q-sine function Sin_q
`qcos`	$\cos_q(x)$	"	(17.3.5)	the q-cosine function $\cos_q$
`qexp`	$e_q(x)$	"	(17.3.1)	the q-exponential function e_q

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`qsin`	$\sin_q(x)$	"	(17.3.3)	the q-sine function $\sin_q$
`DLMF_EL.ocd`		**Elliptic Integrals**		
`ccompellintEk`				
	$E'(k)$	$\mathbb{C} \to \mathbb{C}$	(19.2.9)	(Legendre's) complementary complete elliptic integral of the second kind (of modulus k)
`ccompellintKk`				
	$K'(k)$	"	"	(Legendre's) complementary complete elliptic integral of the first kind (of modulus k)
`compellintDk`				
	$D(k)$	"	(19.2.8)	the complete elliptic integral of Janke (of modulus k)
`compellintEk`				
	$E(k)$	"	"	(Legendre's) complete elliptic integral of the second kind (of modulus k)
`compellintKk`				
	$K(k)$	"	"	(Legendre's) complete elliptic integral of the first kind (of modulus k)
`compellintPik`				
	$\Pi(\alpha^2, k)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	"	(Legendre's) complete elliptic integral of the third kind (of modulus k)
`incellintDk`				
	$D(\phi, k)$	"	(19.2.6)	the incomplete elliptic integral of Janke (of modulus k)
`incellintEk`				
	$E(\phi, k)$	"	(19.2.5)	(Legendre's) incomplete elliptic integral of the second kind (of modulus k)
`incellintFk`				
	$F(\phi, k)$	"	(19.2.4)	(Legendre's) incomplete elliptic integral of the first kind (of modulus k)
`incellintPik`				
	$\Pi(\phi, \alpha^2, k)$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(19.2.7)	(Legendre's) incomplete elliptic integral of the third kind (of modulus k)
`DLMF_EL_Bulirsch.ocd`		**Elliptic Integrals – Bulirsch**		
`Bulirschcompellintcel`				
	$\mathrm{cel}(k_c, p, a, b)$			
			(19.2.11)	Bulirsch's complete elliptic integral
`Bulirschincellintel1`				
	$\mathrm{el1}(x, k_c)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(19.2.15)	Bulirsch's incomplete elliptic integral of the first kind
`Bulirschincellintel2`				
	$\mathrm{el2}(x, k_c, a, b)$			
		$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(19.2.12)	Bulirsch's incomplete elliptic integral of the second kind
`Bulirschincellintel3`				
	$\mathrm{el3}(x, k_c, p)$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(19.2.16)	Bulirsch's incomplete elliptic integral of the third kind

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CD:Name	Notation	Signature	Declared	Proper Name
DLMF_EL_Carlson.ocd	**Elliptic Integrals – Carlson**			
CarsonellintRC				
	$R_C(x,y)$	$\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(19.2.17)	Carlson's elliptic integral combining inverse circular and hyperbolic functions
Carsonmultivarhyper				
	$R_{-a}(b_1,\dots,b_n;z_1,\dots,z_n)$	$\mathbb{C}\times\mathbb{C}^n\times\mathbb{C}^n\to\mathbb{C}$	(19.16.9)	Carlson's multivariate hypergeometric function
CarsonsymellintRD				
	$R_D(x,y,z)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(19.16.5)	Carlson's elliptic integral symmetric in only two variables
CarsonsymellintRF				
	$R_F(x,y,z)$	"	(19.16.1)	Carlson's symmetric elliptic integral of first kind
CarsonsymellintRG				
	$R_G(x,y,z)$	"	(19.16.3)	Carlson's symmetric elliptic integral of second kind
CarsonsymellintRJ				
	$R_J(x,y,z,p)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(19.16.2)	Carlson's symmetric elliptic integral of third kind
DLMF_ER.ocd	**Error Functions, Dawson's and Fresnel Integrals**			
Faddeevaw				
	$w(z)$	$\mathbb{C}\to\mathbb{C}$	(7.2.3)	the complementary error function w
erf	$\mathrm{erf}(z)$	"	(7.2.1)	the error function
erfc	$\mathrm{erfc}(z)$	"	(7.2.2)	the complementary error function erfc
inverf	$\mathrm{inverf}(x)$	"	(7.17.1)	the inverse error function
inverfc	$\mathrm{inverfc}(x)$	"	"	the inverse complementary error function
repinterfc				
	$\mathrm{i}^n\mathrm{erfc}(z)$	$\mathbb{Z}^*\times\mathbb{C}\to\mathbb{C}$	(7.18.2)	the repeated integrals of complementary error function
DLMF_ER_Fresnel.ocd	**Error Functions, Dawson's and Fresnel Integrals – Fresnel**			
DawsonintF				
	$F(z)$	$\mathbb{C}\to\mathbb{C}$	(7.2.5)	Dawson's integral
Fresnelcosint				
	$C(z)$	"	(7.2.7)	the Fresnel cosine integral
FresnelintF				
	$\mathcal{F}(z)$	"	(7.2.6)	the Fresnel integral
Fresnelsinint				
	$S(z)$	"	(7.2.8)	the Fresnel sine integral
GoodwinStatonint				
	$G(z)$	"	(7.2.12)	the Goodwin–Staton integral
auxFresnelf				
	$\mathrm{f}(z)$	"	?	the auxiliary function for Fresnel integrals f
auxFresnelg				
	$\mathrm{g}(z)$	"	"	the auxiliary function for Fresnel integrals g
DLMF_ER_Voigt.ocd	**Error Functions, Dawson's and Fresnel Integrals – Voight**			
FischersHh				

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	$Hh_n(z)$	$\mathbb{Z}^* \times \mathbb{C} \to \mathbb{C}$	(7.18.12)	Fischer's probability function
`MillsM`	$\mathsf{M}(x)$	$\mathbb{C} \to \mathbb{C}$	(7.8.1)	Mill's ratio
`VoightH`	$H(a,u)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(7.19.4)	the line broadening function
`VoigtU`	$\mathsf{U}(x,t)$	"	(7.19.1)	the Voigt function U
`VoigtV`	$\mathsf{V}(x,t)$	"	(7.19.2)	the Voigt function V
`DLMF_EX.ocd`	**Exponential, Logarithmic, Sine, and Cosine Integrals**			
`auxsincosintf`	$\mathrm{f}(z)$	$\mathbb{C} \to \mathbb{C}$	(6.2.17)	the auxiliary function for sine and cosine integrals f
`auxsincosintg`	$\mathrm{g}(z)$	"	(6.2.18)	the auxiliary function for sine and cosine integrals g
`coshint`	$\mathrm{Chi}(z)$	"	(6.2.16)	the hyperbolic cosine integral
`cosint`	$\mathrm{Ci}(z)$	"	(6.2.11)	the cosine integral Ci
`cosintCin`	$\mathrm{Cin}(z)$	"	(6.2.12)	the cosine integral Cin
`expintE`	$E_1(z)$	"	(6.2.1)	the exponential integral E_1
`expintEi` ($\overset{?}{\equiv}$`expint:expintEi`)	$\mathrm{Ei}(z)$	"	§6.2(i)	the exponential integral Ei
`expintEin`	$\mathrm{Ein}(z)$	"	(6.2.3)	the complementary exponential integral
`genexpintE` ($\overset{?}{\equiv}$`expint:E`)	$E_p(z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(8.19.1)	the generalized exponential integral
`logint` ($\overset{?}{\equiv}$`expint:logint`)	$\mathrm{li}(z)$	$\mathbb{C} \to \mathbb{C}$	(6.2.8)	the logarithmic integral
`shiftsinint`	$\mathrm{si}(z)$	"	(6.2.10)	the shifted sine integral
`sinhint`	$\mathrm{Shi}(z)$	"	(6.2.15)	the hyperbolic sine integral
`sinint`	$\mathrm{Si}(z)$	"	(6.2.9)	the sine integral Si
`DLMF_EX_inc.ocd`	**Exponential, Logarithmic, Sine, and Cosine Integrals – Incomplete**			
`gencosint`	$\mathrm{Ci}(a,z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(8.21.2)	the generalized cosine integral
`genshiftcosint`	$\mathrm{ci}(a,z)$	"	(8.21.1)	the generalized shifted cosine integral
`genshiftsinint`	$\mathrm{si}(a,z)$	"	"	the generalized shifted sine integral
`gensinint`	$\mathrm{Si}(a,z)$	"	(8.21.2)	the generalized sine integral
`incBeta`	$\mathrm{B}_x(a,b)$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(8.17.1)	the incomplete beta function
`incGamma`	$\Gamma(a,z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(8.2.2)	the upper incomplete gamma function
`incgamma`	$\gamma(a,z)$	"	(8.2.1)	the lower incomplete gamma function
`normincBetaI`	$I_x(a,b)$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(8.17.2)	the normalized incomplete beta function
`normincGammaP`	$P(a,z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(8.2.4)	the normalized incomplete gamma function P

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normincGammaQ				
	$Q(a,z)$	"	"	the normalized incomplete gamma function Q
scincgamma				
	$\gamma^*(a,z)$	"	(8.2.6)	the scaled incomplete gamma function
terminant				
	$F_p(z)$	"	(2.11.11)	the terminant function
DLMF_EX_mat.ocd	**Exponential, Logarithmic, Sine, and Cosine Integrals – Matrix arguments**			
multivarEulerBeta				
	$\mathrm{B}_m(a,b)$	$\mathbb{Z}^* \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(35.3.3)	multivariate beta function
DLMF_GA.ocd	**Gamma Function**			
BarnesG	$G(z)$	$\mathbb{C} \to \mathbb{C}$	(5.17.1)	the Barne's G-function (or double gamma) function
EulerBeta ($\stackrel{?}{\equiv}$hypergeo0:beta)				
	$\mathrm{B}(a,b)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(5.12.1)	the Euler beta function
EulerGamma ($\stackrel{?}{\equiv}$hypergeo0:gamma)				
	$\Gamma(z)$	$\mathbb{C} \to \mathbb{C}$	(5.2.1)	the Euler gamma function
digamma	$\psi(z)$	"	(5.2.2)	the digamma (or psi) function
polygamma				
	$\psi^{(n)}(z)$	$\mathbb{Z}^+ \times \mathbb{C} \to \mathbb{C}$	§5.15	the polygamma function
DLMF_GA_mat.ocd	**Gamma Function – Matrix arguments**			
multivarEulerGamma				
	$\Gamma_m(a)$	$\mathbb{Z}^* \times \mathbb{C} \to \mathbb{C}$	§35.3(i)	the multivariate gamma function
DLMF_GA_q.ocd	**Gamma Function – q-analogues**			
qBeta	$\mathrm{B}_q(a,b)$	$\mathbb{D} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(5.18.11)	the q-Beta function
qDigamma				
	$\psi_q(z)$	$\mathbb{D} \times \mathbb{C} \to \mathbb{C}$	?	the q-digamma function
qGamma	$\Gamma_q(z)$	"	(5.18.4)	the q-gamma function
qpolygamma				
	$\psi_q^{(n)}(z)$	$\mathbb{Z}^+ \times \mathbb{D} \times \mathbb{C} \to \mathbb{C}$	?	the q-polygamma function
DLMF_GH.ocd	**Generalized Hypergeometric Functions and Meijer G-Function**			
MeijerG	$G^{m,n}_{p,q}(z;a_1\dots,a_p;b_1,\dots,b_q)$			
		$\mathbb{Z}^+ \times \mathbb{Z}^+ \times \mathbb{Z}^+ \times \mathbb{Z}^+ \times \mathbb{C} \times \mathbb{C}^p \times \mathbb{C}^q \to \mathbb{C}$		
			(16.17.1)	the Meijer G-function
genhyper1F1 ($\stackrel{?}{\equiv}$hypergeo1:hypergeometric1F1)				
	${}_1F_1(a;b;z)$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	§16.2	Kummer confluent hypergeometric function, ${}_1F_1 = M$
genhyper2F1 ($\stackrel{?}{\equiv}$hypergeo1:hypergeometric2F1)				
	${}_2F_1(a,b;c;z)$			
		$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	"	Gauss' hypergeometric function, ${}_2F_1 = F$
genhyperF ($\stackrel{?}{\equiv}$hypergeo1:hypergeometric_pFq)				
	${}_pF_q(a_1,\dots,a_p;b_1,\dots,b_q;z)$			
		$\mathbb{Z}^+ \times \mathbb{Z}^+ \times \mathbb{C}^p \times \mathbb{C}^q \times \mathbb{C} \to \mathbb{C}$		
			"	the generalized hypergeometric function
genhyperH				
	${}_pH_q(a_1,\dots,a_p;b_1,\dots,b_q;z)$			
		"	(16.4.16)	the bilateral hypergeometric function

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`genhyperOlverF`	${}_{p}\mathbf{F}_{q}(a_1,\dots,a_p;b_1,\dots,b_q;z)$	"	(16.2.5)	Olver's scaled generalized hypergeometric function
`DLMF_GH_Appell.ocd`	**Generalized Hypergeometric Functions and Meijer G-Function – Appell**			
`AppelF1` ($\overset{?}{\equiv}$hypergeon2:appel_F1)	$F_1(\alpha;\beta,\beta';\gamma;x,y)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(16.13.1)	the first Appell function
`AppelF2` ($\overset{?}{\equiv}$hypergeon2:appel_F2)	$F_2(\alpha;\beta,\beta';\gamma,\gamma';x,y)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(16.13.2)	the second Appell function
`AppelF3` ($\overset{?}{\equiv}$hypergeon2:appel_F3)	$F_3(\alpha,\alpha';\beta,\beta';\gamma;x,y)$	"	(16.13.3)	the third Appell function
`AppelF4` ($\overset{?}{\equiv}$hypergeon2:appel_F4)	$F_4(\alpha,\beta;\gamma,\gamma';x,y)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(16.13.4)	the fourth Appell function
`DLMF_GH_mat.ocd`	**Generalized Hypergeometric Functions and Meijer G-Function – Matrix arguments**			
`genhyperFmat`	${}_{p}F_{q}(a_1,\dots,a_p;b_1,\dots,b_q;\mathbf{T})$	$\mathbb{Z}^*\times\mathbb{Z}^*\times\mathbb{C}^p\times\mathbb{C}^q\times\mathbb{C}^{\bullet\times\bullet}\to\mathbb{C}$	(35.8.1)	the generalized hypergeometric function of matrix argument
`DLMF_GH_q.ocd`	**Generalized Hypergeometric Functions and Meijer G-Function – q-analogues**			
`qgenhyperphi`	${}_{r+1}\phi_{s}(a_0,\dots,a_r;b_1,\dots,b_s;q,z)$	$\mathbb{Z}^*\times\mathbb{Z}^*\times\mathbb{C}^r\times\mathbb{C}^s\times\mathbb{D}\times\mathbb{C}\to\mathbb{C}$	(17.4.1)	the q-hypergeometric (or basic hypergeometric) function
`qgenhyperpsi`	${}_{r}\psi_{s}(a_0,\dots,a_r;b_1,\dots,b_s;q,z)$	"	(17.4.3)	the bilateral q-hypergeometric (or bilateral basic hypergeometric) function
`DLMF_GH_qAppell.ocd`	**Generalized Hypergeometric Functions and Meijer G-Function – q-Appell**			
`qAppelPhi1`	$\Phi^{(1)}(a;b,b';c;q;x,y)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(17.4.5)	the first q-Appell function
`qAppelPhi2`	$\Phi^{(2)}(a;b,b';c,c';q;x,y)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(17.4.6)	the second q-Appell function
`qAppelPhi3`	$\Phi^{(3)}(a,a';b,b';c;q;x,y)$	"	(17.4.7)	the third q-Appell function
`qAppelPhi4`	$\Phi^{(4)}(a,b;c,c';q;x,y)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$		

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			(17.4.8)	the fourth q-Appell function
DLMF_HE.ocd	**Heun Functions**			
HeunHf	$(s_1,s_2)Hf_m(a,q_m;\alpha,\beta,\gamma,\delta;z)$	$\mathbb{C}\times\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§31.4	the Heun function
	$(s_1,s_2)Hf^{\nu}_m(a,q_m;\alpha,\beta,\gamma,\delta;z)$			
HeunHl	$H\ell(a,q;\alpha,\beta,\gamma,\delta;z)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(31.3.1)	the (fundamental) Heun function
HeunpolyHp	$Hp_{n,m}(a,q_{n,m};-n,\beta,\gamma,\delta;z)$	$\mathbb{Z}^*\times\mathbb{Z}^*\times\mathbb{C}\times\mathbb{C}\times\mathbb{Z}^*\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(31.5.2)	the Heun polynomial
DLMF_HY.ocd	**Hypergeometric Function**			
Jacobiphi	$\phi^{(\alpha,\beta)}_{\lambda}(t)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{R}\to\mathbb{C}$	(15.9.11)	the Jacobi function
RiemannsymP	$P\begin{Bmatrix} a & b & c & \\ a_1 & b_1 & c_1 & z \\ a_2 & b_2 & c_2 & \end{Bmatrix}$	$\mathbb{C}^9\times\mathbb{C}\to\mathbb{C}$	(15.11.3)	Riemann's P-symbol for solutions of the generalized hypergeometric differential equation
hyperF ($\overset{?}{\equiv}$hypergeo1:hypergeometric2F1)	$F(a,b;c;z)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(15.2.1)	(Gauss') hypergeometric function
hyperOlverF	$\mathbf{F}(a,b;c;z)$	"	(15.2.2)	Olver's scaled hypergeometric function
DLMF_IC.ocd	**Integrals with Coalescing Saddles**			
canonint	$\Psi_K(\mathbf{x})$	$\mathbb{Z}^*\times\mathbb{R}^K\to\mathbb{C}$	(36.2.4)	the canonical integral function
cuspcatastrophe	$\Phi_K(t;\mathbf{x})$	$\mathbb{Z}^*\times\mathbb{C}\times\mathbb{R}^K\to\mathbb{C}$	(36.2.1)	the cuspoid catastrophe of codimension K
diffrcanonint	$\Psi_K(\mathbf{x};k)$	$\mathbb{Z}^*\times\mathbb{R}^K\to\mathbb{C}$	(36.2.10)	the diffraction canonical integral
ellumbcanonint	$\Psi^{(\mathrm{E})}(\mathbf{x})$	$\mathbb{R}^K\to\mathbb{C}$	(36.2.5)	the elliptic umbilic canonical integral function
ellumbcatastrophe	$\Phi^{(\mathrm{E})}(s,t;\mathbf{x})$	$\mathbb{C}\times\mathbb{C}\times\mathbb{R}^K\to\mathbb{C}$	(36.2.2)	the elliptic umbilic catastrophe
ellumbdiffrcanonint	$\Psi^{(\mathrm{E})}(\mathbf{x};k)$	$\mathbb{R}^K\times\mathbb{R}\to\mathbb{C}$	(36.2.11)	the elliptic umbilic diffraction canonical integral function
hyperumbcanonint	$\Psi^{(\mathrm{H})}(\mathbf{x})$	$\mathbb{R}^K\to\mathbb{C}$	(36.2.5)	the hyperbolic umbilic canonical integral function
hyperumbcatastrophe	$\Phi^{(\mathrm{H})}(s,t;\mathbf{x})$	$\mathbb{C}\times\mathbb{C}\times\mathbb{R}^K\to\mathbb{C}$	(36.2.3)	the hyperbolic umbilic catastrophe
hyperumbdiffrcanonint	$\Psi^{(\mathrm{H})}(\mathbf{x};k)$	$\mathbb{R}^K\times\mathbb{R}\to\mathbb{C}$	(36.2.11)	the hyperbolic umbilic diffraction canonical integral function
umbcanonint	$\Psi^{(\mathrm{U})}(\mathbf{x})$	$\mathbb{R}^K\to\mathbb{C}$	(36.2.5)	the umbilic canonical integral function

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`umbcatastrophe`				
	$\Phi^{(\mathrm{U})}(s,t;\mathbf{x})$	$\mathbb{C}\times\mathbb{C}\times\mathbb{R}^K\to\mathbb{C}$	§36.2	the umbilic catastrophe
`umbdiffrcanonint`				
	$\Psi^{(\mathrm{U})}(\mathbf{x};k)$	$\mathbb{R}^K\times\mathbb{R}\to\mathbb{C}$	(36.2.11)	the umbilic diffraction canonical integral function
`DLMF_JA.ocd`		**Jacobian Elliptic Functions**		
`Jacobiamk`				
	$\mathrm{am}(x,k)$	$\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(22.16.1)	the Jacobi's amplitude function (of modulus k)
`Jacobiellcdk`				
	$\mathrm{cd}(u,k)$	"	(22.2.8)	the Jacobian elliptic function cd (of modulus k)
`Jacobiellcnk`				
	$\mathrm{cn}(u,k)$	"	(22.2.5)	the Jacobian elliptic function cn (of modulus k)
`Jacobiellcsk`				
	$\mathrm{cs}(u,k)$	"	(22.2.9)	the Jacobian elliptic function cs (of modulus k)
`Jacobielldck`				
	$\mathrm{dc}(u,k)$	"	(22.2.8)	the Jacobian elliptic function dc (of modulus k)
`Jacobielldnk`				
	$\mathrm{dn}(u,k)$	"	(22.2.6)	the Jacobian elliptic function dn (of modulus k)
`Jacobielldsk`				
	$\mathrm{ds}(u,k)$	"	(22.2.7)	the Jacobian elliptic function ds (of modulus k)
`Jacobiellnck`				
	$\mathrm{nc}(u,k)$	"	(22.2.5)	the Jacobian elliptic function nc (of modulus k)
`Jacobiellndk`				
	$\mathrm{nd}(u,k)$	"	(22.2.6)	the Jacobian elliptic function nd (of modulus k)
`Jacobiellnsk`				
	$\mathrm{ns}(u,k)$	"	(22.2.4)	the Jacobian elliptic function ns (of modulus k)
`Jacobiellsck`				
	$\mathrm{sc}(u,k)$	"	(22.2.9)	the Jacobian elliptic function sc (of modulus k)
`Jacobiellsdk`				
	$\mathrm{sd}(u,k)$	"	(22.2.7)	the Jacobian elliptic function sd (of modulus k)
`Jacobiellsnk`				
	$\mathrm{sn}(u,k)$	"	(22.2.4)	the Jacobian elliptic function sn (of modulus k)
`aJacobiellcdk`				
	$\mathrm{arccd}(x,k)$	"	§22.15(i)	the inverse of the Jacobian elliptic function cd (of modulus k)
`aJacobiellck`				
	$\mathrm{arcdc}(x,k)$	"	"	the inverse of the Jacobian elliptic function dc (of modulus k)

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aJacobiellcnk				
	$\operatorname{arccn}(x, k)$	"	"	the inverse of the Jacobian elliptic function cn (of modulus k)
aJacobiellcsk				
	$\operatorname{arccs}(x, k)$	"	"	the inverse of the Jacobian elliptic function cs (of modulus k)
aJacobielldnk				
	$\operatorname{arcdn}(x, k)$	"	"	the inverse of the Jacobian elliptic function dn (of modulus k)
aJacobielldsk				
	$\operatorname{arcds}(x, k)$	"	"	the inverse of the Jacobian elliptic function ds (of modulus k)
aJacobiellnck				
	$\operatorname{arcnc}(x, k)$	"	"	the inverse of the Jacobian elliptic function nc (of modulus k)
aJacobiellndk				
	$\operatorname{arcnd}(x, k)$	"	"	the inverse of the Jacobian elliptic function nd (of modulus k)
aJacobiellnsk				
	$\operatorname{arcns}(x, k)$	"	"	the inverse of the Jacobian elliptic function ns (of modulus k)
aJacobiellsck				
	$\operatorname{arcsc}(x, k)$	"	"	the inverse of the Jacobian elliptic function sc (of modulus k)
aJacobiellsdk				
	$\operatorname{arcsd}(x, k)$	"	"	the inverse of the Jacobian elliptic function ds (of modulus k)
aJacobiellsnk				
	$\operatorname{arcsn}(x, k)$	"	"	the inverse of the Jacobian elliptic function sn (of modulus k)
DLMF_JA_aux.ocd		**Jacobian Elliptic Functions – Auxiliary**		
JacobiEpsilonk				
	$\mathcal{E}(x, k)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(22.16.14)	Jacobi's Epsilon function (of modulus k)
JacobiZetak				
	$\mathrm{Z}(x\|k)$	"	(22.16.32)	Jacobi's Zeta function (of modulus k)
DLMF_JA_gen.ocd		**Jacobian Elliptic Functions – Generalizations**		
agenJacobiellk				
	$\operatorname{arcpq}(x, k)$			
		$\{\mathrm{s}, \mathrm{n}, \mathrm{d}\} \times \{\mathrm{s}, \mathrm{n}, \mathrm{d}\} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$		
			?	the inverse of the generic Jacobian elliptic function pq (of modulus k)
genJacobiellk				
	$\mathrm{pq}(u, k)$	"	(22.2.10)	the generic Jacobian elliptic function pq (of modulus k)
DLMF_LA.ocd		**Lam'e Functions**		
LameEc	$Ec^m_\nu\left(z, k^2\right)$	$\mathbb{Z}^* \times \mathbb{R} \times \mathbb{C} \times \mathbb{R} \to \mathbb{C}$	§29.3(iv)	the Lamé function Ec^m_ν
LameEs	$Es^m_\nu\left(z, k^2\right)$	"	"	the Lamé function Es^m_ν
Lameeigvala				
	$a^n_\nu\left(k^2\right)$	$\mathbb{Z}^* \times \mathbb{R} \times \mathbb{R} \to \mathbb{C}$	§29.3(i)	the eigenvalues of Lamé's equation a^n_ν

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CD:Name	Notation	Signature	Declared	Proper Name
Lameeigvalb				
	$b^{n}_{\nu}\left(k^{2}\right)$	"	"	the eigenvalues of Lamé's equation b^{n}_{ν}
LamepolycE				
	$\mathit{cE}^{m}_{2n+1}\left(z,k^{2}\right)$	$\mathbb{Z}^{*}\times\mathbb{Z}^{*}\times\mathbb{C}\times\mathbb{R}\to\mathbb{C}$	(29.12.3)	the Lamé polynomial cE^{m}_{2n+1}
LamepolycdE				
	$\mathit{cdE}^{m}_{2n+2}\left(z,k^{2}\right)$	"	(29.12.7)	the Lamé polynomial cdE^{m}_{2n+2}
LamepolydE				
	$\mathit{dE}^{m}_{2n+1}\left(z,k^{2}\right)$	"	(29.12.4)	the Lamé polynomial dE^{m}_{2n+1}
LamepolysE				
	$\mathit{sE}^{m}_{2n+1}\left(z,k^{2}\right)$	"	(29.12.2)	the Lamé polynomial sE^{m}_{2n+1}
LamepolyscE				
	$\mathit{scE}^{m}_{2n+2}\left(z,k^{2}\right)$	"	(29.12.5)	the Lamé polynomial scE^{m}_{2n+2}
LamepolyscdE				
	$\mathit{scdE}^{m}_{2n+3}\left(z,k^{2}\right)$	"	(29.12.8)	the Lamé polynomial scdE^{m}_{2n+3}
LamepolysdE				
	$\mathit{sdE}^{m}_{2n+2}\left(z,k^{2}\right)$	"	(29.12.6)	the Lamé polynomial sdE^{m}_{2n+2}
LamepolyuE				
	$\mathit{uE}^{m}_{2n}\left(z,k^{2}\right)$	"	(29.12.1)	the Lamé polynomial uE^{m}_{2n}
DLMF_LE.ocd	**Legendre and Related Functions**			
DunsterQ				
	$\widehat{\mathsf{Q}}^{-\mu}_{-\frac{1}{2}+\mathrm{i}\tau}(x)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{R}\to\mathbb{C}$	(14.20.2)	Dunster's conical function
FerrersP				
	$\mathsf{P}_{\nu}(x)$	$\mathbb{C}\times\mathbb{R}\to\mathbb{C}$	§14.2(ii)	$=\mathsf{P}^{0}_{\nu}$, shorthand for the Ferrers function of the first kind
	$\mathsf{P}^{\mu}_{\nu}(x)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{R}\to\mathbb{C}$	(14.3.1)	the Ferrers function of the first kind
FerrersQ				
	$\mathsf{Q}_{\nu}(x)$	$\mathbb{C}\times\mathbb{R}\to\mathbb{C}$	§14.2(ii)	$=\mathsf{Q}^{0}_{\nu}$, shorthand for the Ferrers function of the second kind
	$\mathsf{Q}^{\mu}_{\nu}(x)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{R}\to\mathbb{C}$	(14.3.2)	the Ferrers function of the second kind
assLegendreOlverQ				
	$\boldsymbol{Q}_{\nu}(z)$	$\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§14.2(ii)	$=\boldsymbol{Q}^{0}_{\nu}$, shorthand for Olver's associated Legendre function
	$\boldsymbol{Q}^{\mu}_{\nu}(z)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§14.21(i)	Olver's associated Legendre function
assLegendreP				
	$P_{\nu}(z)$	$\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§14.2(ii)	$=P^{0}_{\nu}$, shorthand for the associated Legendre function of the first kind
	$P^{\mu}_{\nu}(z)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§14.21(i)	the associated Legendre function of the first kind
assLegendreQ				
	$Q_{\nu}(z)$	$\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§14.2(ii)	$=Q^{0}_{\nu}$, shorthand for the associated Legendre function of the second kind
	$Q^{\mu}_{\nu}(z)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§14.21(i)	the associated Legendre function of the second kind
sphharmonicY				
	$Y_{l,m}(\theta,\phi)$	$\mathbb{Z}^{*}\times\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\to\mathbb{C}$	(14.30.1)	the spherical harmonic
surfharmonicY				
	$Y^{m}_{l}(\theta,\phi)$	"	(14.30.2)	the surface harmonic of the first kind

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DLMF_MA.ocd	**Mathieu Functions and Hill's Equation**			
Mathieuce				
	$\mathrm{ce}_n(z,q)$	$\mathbb{Z}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§28.2(vi)	the Mathieu function ce_n
Mathieueigvala				
	$a_n(q)$	$\mathbb{Z}\times\mathbb{C}\to\mathbb{C}$	§28.2(v)	the eigenvalues of the Mathieu's equation a_n
Mathieueigvalb				
	$b_n(q)$	"	"	the eigenvalues of the Mathieu's equation b_n
Mathieueigvallambda				
	$\lambda_{\nu+2n}(q)$	$\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§28.12(i)	the eigenvalues of Mathieu's equation $\lambda_{\nu+2n}$
Mathieufe				
	$\mathrm{fe}_n(z,q)$	$\mathbb{Z}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(28.5.1)	the second solution of Mathieu's equation fe_n
Mathieuge				
	$\mathrm{ge}_n(z,q)$	"	(28.5.2)	the second solution of Mathieu's equation ge_n
Mathieume				
	$\mathrm{me}_n(z,q)$	"	§28.12(ii)	the Mathieu function me_n
Mathieuse				
	$\mathrm{se}_n(z,q)$	"	§28.2(vi)	the Mathieu function se_n
DLMF_MA_cross.ocd	**Mathieu Functions and Hill's Equation – Cross-Products**			
modMathieuD				
	$\mathrm{D}_j(\nu,\mu,z)$	$\mathbb{Z}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(28.28.24)	the cross-products of modified Mathieu functions and their derivatives
radMathieuDc				
	$\mathrm{Dc}_j(n,m,z)$	$\mathbb{Z}\times\mathbb{Z}\times\mathbb{Z}\times\mathbb{C}\to\mathbb{C}$	(28.28.39)	the cross-products of radial Mathieu functions and their derivatives Dc_j
radMathieuDs				
	$\mathrm{Ds}_j(n,m,z)$	"	(28.28.35)	the cross-products of radial Mathieu functions and their derivatives Ds_j
radMathieuDsc				
	$\mathrm{Dsc}_j(n,m,z)$	"	(28.28.40)	the cross-products of radial Mathieu functions and their derivatives Dsc_j
DLMF_MA_mod.ocd	**Mathieu Functions and Hill's Equation – Modified**			
modMathieuCe				
	$\mathrm{Ce}_\nu(z,q)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(28.20.3)	the modified Mathieu function Ce_ν
modMathieuFe				
	$\mathrm{Fe}_\nu(z,q)$	"	(28.20.6)	the modified Mathieu function Fe_ν
modMathieuGe				
	$\mathrm{Ge}_\nu(z,q)$	"	(28.20.7)	the modified Mathieu function Ge_ν
modMathieuIe				
	$\mathrm{Ie}_n(z,h)$	$\mathbb{Z}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(28.20.17)	the modified Mathieu function Ie_n
modMathieuIo				
	$\mathrm{Io}_n(z,h)$	"	(28.20.18)	the modified Mathieu function Io_n
modMathieuKe				
	$\mathrm{Ke}_n(z,h)$	"	(28.20.19)	the modified Mathieu function Ke_n
modMathieuKo				
	$\mathrm{Ko}_n(z,h)$	"	(28.20.20)	the modified Mathieu function Ko_n
modMathieuM				

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	$\mathrm{M}_{\nu}^{(j)}(z,h)$	$\mathbb{Z}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§28.20(iii)	the modified Mathieu function $\mathrm{M}_{\nu}^{(j)}$
`modMathieuMe`				
	$\mathrm{Me}_{\nu}(z,q)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(28.20.5)	the modified Mathieu function Me_{ν}
`modMathieuSe`				
	$\mathrm{Se}_{\nu}(z,q)$	"	(28.20.4)	the modified Mathieu function Se_{ν}
`DLMF_MA_rad.ocd`		**Mathieu Functions and Hill's Equation – Radial**		
`radMathieuMc`				
	$\mathrm{Mc}_{n}^{(j)}(z,h)$	$\mathbb{Z}\times\mathbb{Z}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(28.20.15)	the radial Mathieu function $\mathrm{Mc}_{n}^{(j)}$
`radMathieuMs`				
	$\mathrm{Ms}_{n}^{(j)}(z,h)$	"	(28.20.16)	the radial Mathieu function $\mathrm{Ms}_{n}^{(j)}$
`DLMF_NT.ocd`		**Functions of Number Theory**		
`Eulertotientphi`				
	$\phi(n)$	$\mathbb{Z}^{+}\to\mathbb{Z}^{*}$	(27.2.7)	Euler's totient, the number of positive integers relatively prime to n, $(\phi=\phi_0)$
	$\phi_k(n)$	$\mathbb{Z}^{+}\times\mathbb{Z}^{+}\to\mathbb{Z}^{*}$	(27.2.6)	the sum of k^{th} powers of integers relatively prime to n
`JordanJ`	$J_k(n)$	"	(27.2.11)	Jordan's function
`Liouvillelambda`				
	$\lambda(n)$	$\mathbb{Z}^{+}\to\{0,\pm1\}$	(27.2.13)	the Liouville's function
`Mangoldtlambda`				
	$\Lambda(n)$	$\mathbb{Z}^{+}\to\mathbb{R}$	(27.2.14)	Mangoldt's function
`Moebiusmu`				
	$\mu(n)$	$\mathbb{Z}^{+}\to\{0,\pm1\}$	(27.2.12)	the Möbius function
`ndivisors`				
	$d(n)$	$\mathbb{Z}^{+}\to\mathbb{Z}^{*}$	§27.2(i)	the number of divisors of n (divisor function)
	$d_k(n)$	$\mathbb{Z}^{+}\times\mathbb{Z}^{+}\to\mathbb{Z}^{*}$		the number of ways of expressing n as product of k factors
`nprimes`	$\pi(x)$	$\mathbb{R}\to\mathbb{Z}^{*}$	(27.2.2)	the number of primes not exceeding x
`nprimesdiv`				
	$\nu(n)$	$\mathbb{Z}^{+}\to\mathbb{Z}^{*}$	§27.2(i)	the number of distinct primes dividing n
`sumdivisors`				
	$\sigma_{\alpha}(n)$	$\mathbb{C}\times\mathbb{Z}^{+}\to\mathbb{C}$	(27.2.10)	the sum of powers of divisors of n
`DLMF_NT_aux.ocd`		**Functions of Number Theory – Auxiliary**		
`Dedekindeta`				
	$\eta(\tau)$	$\mathbb{C}\to\mathbb{C}$	(27.14.12)	Dedekind's eta function (or modular function)
`Dirichletchar`				
	$\chi(n,k)$ $\chi_r(n,k)$	$\mathbb{Z}^{*}\to\{0,1\}$	§27.8	the Dirichlet character
`DiscriminantDelta`				
	$\Delta(\tau)$	$\mathbb{C}\to\mathbb{C}$	(27.14.16)	the discriminant function
`Eulerphi`				
	$f(x)$	$\mathbb{R}\to\mathbb{R}$	(27.14.2)	Euler's reciprocal function
`Gausssum`				
	$G(n,\chi)$	$\mathbb{Z}^{+}\times\mathbb{Z}^{+}\to\mathbb{C}$	(27.10.9)	the Gauss sum
`Jacobisym`				
	$(n\|p)$	$\mathbb{Z}^{+}\times\mathbb{Z}^{+}\to\{0,\pm1\}$	§27.9	the Jacobi symbol

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Legendresym				
	$(n\|p)$	"	§27.9	the Legendre symbol
Ramanujantau				
	$\tau(n)$	$\mathbb{Z}^+ \to \mathbb{Z}$	(27.14.18)	Ramanujan's tau function
Rmanujansum				
	$c_k(n)$	$\mathbb{Z}^+ \to \mathbb{R}$	(27.10.4)	Ramanujan's sum
WaringG	$G(k)$	$\mathbb{Z}^+ \to \mathbb{Z}^*$	§27.13(iii)	Waring's function G
Waringg	$g(k)$	"	"	Waring's function g
nsquares				
	$r_k(n)$	$\mathbb{Z}^+ \times \mathbb{Z}^+ \to \mathbb{Z}^*$	§27.13(iv)	the number of squares
DLMF_OP.ocd		**Orthogonal Polynomials**		
ChebyshevpolyT				
	$T_n(x)$	$\mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	§18.3	the Chebyshev polynomial of the first kind
ChebyshevpolyU				
	$U_n(x)$	"	§18.3	the Chebyshev polynomial of the second kind
ChebyshevpolyV				
	$V_n(x)$	"	§18.3	the Chebyshev polynomial of the third kind
ChebyshevpolyW				
	$W_n(x)$	"	§18.3	the Chebyshev polynomial of the fourth kind
HermitepolyH				
	$H_n(x)$	"	§18.3	the Hermite polynomial
JacobipolyP				
	$P_n^{(\alpha,\beta)}(x)$	$\mathbb{R} \times \mathbb{R} \times \mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	§18.3	the Jacobi polynomial
LaguerrepolyL				
	$L_n(x)$	$\mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	§18.1	$= L_n^{(0)}$, shorthand for the Laguerre polynomial
	$L_n^{(\alpha)}(x)$	$\mathbb{R} \times \mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	§18.3	the (generalized or associated) Laguerre (or Sonin) polynomial
LegendrepolyP				
	$P_n(x)$	$\mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	§18.3	the Legendre (or spherical) polynomial
dilChebyshevpolyC				
	$C_n(x)$	"	(18.1.3)	the dilated Chebyshev polynomial of first kind
dilChebyshevpolyS				
	$S_n(x)$	"	"	the dilated Chebyshev polynomial of second kind
dilHermitepolyHe				
	$He_n(x)$	"	§18.3	the dilated Hermite polynomial
shiftChebyshevpolyT				
	$T_n^*(x)$	"	§18.3	the shifted Chebyshev polynomial of the first kind
shiftChebyshevpolyU				
	$U_n^*(x)$	"	§18.3	the shifted Chebyshev polynomial of the second kind
shiftJacobipolyG				
	$G_n(p,q,x)$	$\mathbb{Z}^* \times \mathbb{Z}^* \times \mathbb{Z}^* \times \mathbb{R} \to \mathbb{R}$	(18.1.2)	the shifted Jacobi polynomial
shiftLegendrepolyP				

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	$P^{*}_{n}(x)$	$\mathbb{Z}^{*}\times\mathbb{R}\to\mathbb{R}$	§18.3	the shifted Legendre polynomial
ultrasphpoly				
	$C^{(\lambda)}_{n}(x)$	$\mathbb{R}\times\mathbb{Z}^{*}\times\mathbb{R}\to\mathbb{R}$	§18.3	the ultraspherical (or Gegenbauer) polynomial
DLMF_OP_askey.ocd	**Orthogonal Polynomials – askey**			
CharlierpolyC				
	$C_{n}(x;a)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	§18.19	the Charlier polynomial
HahnpolyQ				
	$Q_{n}(x;\alpha,\beta,N)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{Z}^{*}\to\mathbb{R}$	§18.19	the Hahn polynomial
KrawtchoukpolyK				
	$K_{n}(x;p,N)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\times\mathbb{Z}^{*}\to\mathbb{R}$	§18.19	the Krawtchouk polynomial
MeixnerPollaczekpolyP				
	$P^{(\lambda)}_{n}(x;\phi)$	$\mathbb{R}\times\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	§18.19	the Meixner–Pollaczek polynomial
MeixnerpolyM				
	$M_{n}(x;\beta,c)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	§18.19	the Meixner polynomial
RacahpolyR				
	$R_{n}(x;\alpha,\beta,\gamma,\delta)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§18.25	the Racah polynomial
WilsonpolyW				
	$W_{n}(x;a,b,c,d)$	"	§18.25	the Wilson polynomial
contHahnpolyp				
	$p_{n}\left(x;a,b,\overline{a},\overline{b}\right)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§18.19	the continuous Hahn polynomial
contdualHahnpolyS				
	$S_{n}(x;a,b,c)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§18.25	the continuous dual Hahn polynomial
dualHahnpolyR				
	$R_{n}(x;\gamma,\delta,N)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{Z}^{*}\to\mathbb{C}$	§18.25	the dual Hahn polynomial
DLMF_OP_aux.ocd	**Orthogonal Polynomials – Auxiliary**			
Besselpolyy				
	$y_{n}(x;a)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.34.1)	the Bessel polynomial
PollaczekpolyP				
	$P^{(\lambda)}_{n}(x;a,b)$	$\mathbb{R}\times\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.35.4)	the Pollaczek polynomial
assJacobipolyP				
	$P^{(\alpha,\beta)}_{n}(x;c)$	$\mathbb{R}\times\mathbb{R}\times\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.30.4)	the associated Jacobi polynomial
assLegendrepoly				
	$P_{n}(x;c)$	$\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.30.6)	the associated Legendre polynomial
diskpoly				
	$R^{(\alpha)}_{m,n}(z)$	$\mathbb{R}\times\mathbb{Z}^{*}\times\mathbb{Z}^{*}\times\mathbb{C}\to\mathbb{C}$	(18.37.1)	the disk polynomial
trianglepoly				
	$P^{\alpha,\beta,\gamma}_{m,n}(x,y)$	$\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{Z}^{*}\times\mathbb{Z}^{*}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.37.7)	the triangle polynomial
DLMF_OP_mat.ocd	**Orthogonal Polynomials – Matrix arguments**			
JacobifunPmat				
	$P^{(\gamma,\delta)}_{\nu}(\mathbf{T})$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}^{\bullet\times\bullet}\to\mathbb{C}$	(35.7.2)	the Jacobi function of matrix argument

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LaguerrefunLmat				
	$L_{\nu}(\mathbf{T})$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}^{\bullet\times\bullet}\to\mathbb{C}$	(35.6.3)	the Laguerre function of matrix argument
	$L_{\nu}^{(\gamma)}(\mathbf{T})$			
DLMF_OP_q.ocd		**Orthogonal Polynomials – q-analogues**		
AlSalamChiharapolyQ				
	$Q_n(x;a,b\,\vert\,q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.28.7)	the Al-Salam–Chihara polynomial
AskeyWilsonpolyp				
	$p_n(x;a,b,c,d\,\vert\,q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.28.1)	the Askey–Wilson polynomial
StieltjesWigertpolyS				
	$S_n(x;q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.27.18)	the Stieltjes–Wigert polynomial
bigqJacobipolyP				
	$P_n(x;a,b,c;q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.27.5)	the big q-Jacobi polynomial
contqHermitepolyH				
	$H_n(x\,\vert\,q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.28.16)	the continuous q-Hermite polynomial
contqinvHermitepolyh				
	$h_n(x\,\vert\,q)$	"	(18.28.18)	the continuous q^{-1}-Hermite polynomial
contqultrasphpoly				
	$C_n(x;\beta\,\vert\,q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.28.13)	the continuous q-ultraspherical (or Rogers) polynomial
discqHermitepolyhI				
	$h_n(x;q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.27.21)	the discrete q-Hermite I polynomial
discqHermitepolyhII				
	$\tilde{h}_n(x;q)$	"	(18.27.23)	the discrete q-Hermite II polynomial
littleqJacobipolyp				
	$p_n(x;a,b;q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.27.13)	the little q-Jacobi polynomial
qHahnpolyQ				
	$Q_n(x;\alpha,\beta,N;q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{Z}^*\times\mathbb{R}\to\mathbb{R}$	(18.27.3)	the q-Hahn polynomial
qLaguerrepolyL				
	$L_n^{(\alpha)}(x;q)$	$\mathbb{R}\times\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.27.15)	the q-Laguerre polynomial
qRacahpolyR				
	$R_n(x;\alpha,\beta,\gamma,\delta\,\vert\,q)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.28.19)	the q-Racah polynomial
qinvAlSalamChiharapolyQ				
	$Q_n\left(x;a,b\,\vert\,q^{-1}\right)$	$\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.28.9)	the q^{-1}-Al-Salam–Chihara polynomial
scbigqJacobipolyP				
	$P_n^{(\alpha,\beta)}(x;c,d;q)$	$\mathbb{R}\times\mathbb{R}\times\mathbb{Z}^*\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\times\mathbb{R}\to\mathbb{R}$	(18.27.6)	the scaled big q-Jacobi polynomial
DLMF_PC.ocd		**Parabolic Cylinder Functions**		

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CD:Name	Notation	Signature	Declared	Proper Name
WhittakerparaD	$D_{\nu}(z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	§12.1	Whittaker's notation for the parabolic cylinder function
paraU	$U(a,z)$	"	§12.2(i)	the parabolic cylinder (or Weber) function U
paraV	$V(a,z)$	"	"	the parabolic cylinder (or Weber) function V
paraW	$W(a,z)$	"	§12.14(i)	the parabolic cylinder (or Weber) function W
DLMF_PC_mag.ocd	**Parabolic Cylinder Functions – Magnitudes, Phases**			
envparaU	$\mathrm{env}U(c,x)$	$\mathbb{C} \times \mathbb{R} \to \mathbb{R}$	§14.15(v)	the envelope of the parabolic cylinder function U
envparaUbar	$\mathrm{env}\overline{U}(c,x)$	"	"	the envelope of the parabolic cylinder function $\overline{U}$
paraUbar	$\overline{U}(a,x)$	$\mathbb{C} \times \mathbb{R} \to \mathbb{C}$	§12.2(vi)	the parabolic cylinder (or Weber) function $\overline{U}$
DLMF_ST.ocd	**Struve and Related Functions**			
StruveH	$\mathbf{H}_{\nu}(z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(11.2.1)	the Struve function $\mathbf{H}_{\nu}$
StruveK	$\mathbf{K}_{\nu}(z)$	"	(11.2.5)	the Struve function $\mathbf{K}_{\nu}$
DLMF_ST_aux.ocd	**Struve and Related Functions – Auxiliary**			
AngerJ	$\mathbf{J}_{\nu}(z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(11.10.1)	the Anger function
AngerWeberA	$\mathbf{A}_{\nu}(z)$	"	(11.10.4)	the Anger–Weber function
WeberE	$\mathbf{E}_{\nu}(z)$	"	(11.10.2)	the Weber function
DLMF_ST_lommel.ocd	**Struve and Related Functions – lommel**			
LommelS	$S_{\mu,\nu}(z)$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(11.9.5)	the Lommel function $S_{\mu,\nu}$
Lommels	$s_{\mu,\nu}(z)$	"	(11.9.3)	the Lommel function $s_{\mu,\nu}$
DLMF_ST_mod.ocd	**Struve and Related Functions – Modified**			
modStruveL	$\mathbf{L}_{\nu}(z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(11.2.2)	the modified Struve function $\mathbf{L}_{\nu}$
modStruveM	$\mathbf{M}_{\nu}(z)$	"	(11.2.6)	the modified Struve function $\mathbf{M}_{\nu}$
DLMF_SW.ocd	**Spheroidal Wave Functions**			
radsphwaveS	$S^{m(j)}_{n}(z,\gamma)$	$\mathbb{Z}^* \times \mathbb{Z}^* \times \mathbb{Z}^* \times \mathbb{C} \times \mathbb{R} \to \mathbb{C}$	(30.11.3)	the radial spheroidal wave function
spheigvalLambda	$\lambda^{m}_{n}(\gamma^2)$		§30.3(i)	the eigenvalues of the spheroidal differential equation
sphwavePs	$Ps^{m}_{n}(z,\gamma^2)$	$\mathbb{Z}^* \times \mathbb{Z}^* \times \mathbb{C} \times \mathbb{R} \to \mathbb{C}$	§30.6	the spheroidal wave function of complex argument
sphwaveQs	$Qs^{m}_{n}(z,\gamma^2)$	"	"	"
DLMF_SW_real.ocd	**Spheroidal Wave Functions – Real**			
sphwavePsreal	$\mathsf{Ps}^{m}_{n}(x,\gamma^2)$	$\mathbb{Z}^* \times \mathbb{Z}^* \times \mathbb{R} \times \mathbb{R} \to \mathbb{R}$	§30.4(i)	the spheroidal wave function of first kind

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sphwaveQsreal	$\mathsf{Qs}^{m}_{n}\left(x,\gamma^{2}\right)$	"	§30.5	the spheroidal wave function of second kind
DLMF_TH.ocd	**Theta Functions**			
Jacobithetacombinedq	$\varphi_{n,m}(z,q)$	$\{1,2,3,4\}\times\{1,2,3,4\}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§20.11(v)	the combined theta function
Jacobithetaq	$\theta_{j}\left(z,q\right)$	$\{1,2,3,4\}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§20.2(i)	the Jacobi theta function of q
Jacobithetatau	$\theta_{j}\left(z\middle\vert\tau\right)$	"	"	the Jacobi theta function of τ
DLMF_TH_Riemann.ocd	**Theta Functions – Riemann**			
Riemanntheta	$\theta(z\vert\Omega)$	$\mathbb{C}\times\mathbb{C}^{\bullet\times\bullet}\to\mathbb{C}$	(21.2.1)	the Riemann theta function
Riemannthetachar	$\theta\left[\begin{smallmatrix}\alpha\\\beta\end{smallmatrix}\right](z\vert\Omega)$	$\mathbb{R}^{\bullet}\times\mathbb{R}^{\bullet}\times\mathbb{C}\times\mathbb{C}^{\bullet\times\bullet}\to\mathbb{C}$	(21.2.5)	the Riemann theta function with characteristics
scRiemanntheta	$\hat{\theta}(z\vert\Omega)$	$\mathbb{C}\times\mathbb{C}^{\bullet\times\bullet}\to\mathbb{C}$	(21.2.2)	the scaled Riemann theta function (or oscillatory part of the theta function)
DLMF_TJ.ocd	**3 extitj, 6 extitj, 9 extitj Symbols**			
Wignerninejsym	$\begin{Bmatrix}j_{11}&j_{12}&j_{13}\\j_{21}&j_{22}&j_{23}\\j_{31}&j_{32}&j_{33}\end{Bmatrix}$	$(\mathbb{Z}/2)^{9}$	(34.6.1)	the Wigner $9j$ symbol
Wignersixjsym	$\begin{Bmatrix}j_{1}&j_{2}&j_{3}\\l_{1}&l_{2}&l_{3}\end{Bmatrix}$	$(\mathbb{Z}/2)^{6}$	(34.4.1)	the Wigner $6j$ symbol
Wignerthreejsym	$\begin{pmatrix}j_{1}&j_{2}&j_{3}\\m_{1}&m_{2}&m_{3}\end{pmatrix}$	"	(34.2.4)	the Wigner $3j$ symbol
DLMF_WE.ocd	**Weierstrass Elliptic and Modular Functions**			
KleincompinvarJtau	$J(\tau)$	$\mathbb{C}\to\mathbb{C}$	(23.15.7)	Klein's complete invariant
modularlambdatau	$\lambda(\tau)$	"	(23.15.6)	the elliptic modular function
DLMF_WE_invar.ocd	**Weierstrass Elliptic and Modular Functions – on invariants**			
Weierstrasspinvar	$\wp(z;g_{2},g_{3})$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	(23.3.8)	the Weierstrass $\wp$-function (on invariants)
Weierstrasssigmainvar	$\sigma(z;g_{2},g_{3})$	"	§23.3(i)	the Weierstrass sigma function σ (on invariants)
Weierstrasszetainvar	$\zeta(z;g_{2},g_{3})$	"	"	the Weierstrass zeta function ζ (on invariants)

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DLMF_WE_lattice.ocd	**Weierstrass Elliptic and Modular Functions – on Lattice**			
Weierstrasselatt				
	$e_i(L)$	$\mathbf{L} \to \mathbb{C}$	§23.3(i)	the Weierstrass lattice roots (on Lattice)
Weierstrassinvarlatt				
	$g_i(L)$	"	§23.3	the Weierstrass invariants (on Lattice)
Weierstrassplatt				
	$\wp(z\|L)$	$\mathbb{C} \times \mathbf{L} \to \mathbb{C}$	(23.2.4)	the Weierstrass $\wp$-function (on Lattice)
Weierstrasssigmalatt				
	$\sigma(z\|L)$	"	(23.2.6)	the Weierstrass sigma function σ (on Lattice)
Weierstrasszetalatt				
	$\zeta(z\|L)$	"	(23.2.5)	the Weierstrass zeta function ζ (on Lattice)
DLMF_ZE.ocd	**Zeta and Related Functions**			
ChebyshevPsi				
	$\psi(x)$	$\mathbb{C} \to \mathbb{C}$	(25.16.1)	the Chebyshev ψ-function
DirichletL				
	$L(s, \chi)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(25.15.1)	the Dirichlet L-function
EulersumH				
	$H(s)$	$\mathbb{C} \to \mathbb{C}$	§25.16(ii)	the Euler sum
Hurwitzzeta				
	$\zeta(s, a)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(25.11.1)	the Hurwitz zeta function
Jonquierephi				
	$\phi(z, s)$	"	§25.12(ii)	Truesdell's notation for polylogarithm
LerchPhi				
	$\Phi(z, s, a)$	$\mathbb{C} \times \mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(25.14.1)	Lerch's transcendent
Riemannxi				
	$\xi(s)$	$\mathbb{C} \to \mathbb{C}$	(25.4.4)	the Riemann ξ function
Riemannzeta				
	$\zeta(s)$	"	(25.2.1)	the Riemann zeta function
dilog	$\mathrm{Li}_2(z)$	"	(25.12.1)	the dilogarithm
genEulersumH				
	$H(s, z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	§25.16(ii)	the generalized Euler sum
perZeta	$F(x, s)$	$\mathbb{R} \times \mathbb{C} \to \mathbb{C}$	(25.13.1)	the periodic zeta function
polylog	$\mathrm{Li}_s(z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	(25.12.10)	the polylogarithm
DLMF_types.ocd				
UnitDisc				
	$\mathbb{D}$		Intro.	the set of complex numbers in the (open) unit disc
arith1.ocd (***official***)				
abs	$\|x\|$		?	the absolute value of x
asymp1.ocd (***experimental***)				
O	$O(x)$		(2.1.3)	the order not exceeding
asymptotic				
	$\sim$		(2.1.1)	asymptotically equal
o	$o(x)$		(2.1.2)	the order less than
asymp2.ocd (***DLMF speculative***)				
asymptotic_expansion				

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CD:Name	Notation	Signature	Declared	Proper Name
	$\sim$		§2.1(iii)	asymptotic expansion (the right-hand side is the asymptotic expansion of the left-hand side)
complex1.ocd (*official*)				
argument				
	$\mathrm{ph}(z)$		(1.9.7)	the phase of a complex number z
conjugate				
	$\overline{z}$		(1.9.11)	the complex conjugate of a complex number z
imaginary				
	$\Im(z)$		(1.9.2)	the imaginary part of a complex number z
real	$\Re(z)$		"	the real part of a complex number z
equals.ocd				
definition				
	$\equiv$		Intro.	equal by definition
equivalence.ocd				
equivalence				
	$\equiv$		Intro.	modular equivalence
integer2.ocd (*experimental*)				
divides	$\mid$		?	the divides operator operator
linalg1.ocd (*official*)				
scalarproduct				
	$\cdot$		?	the vector dot product operator
transpose				
	$\mathbf{X}^{\mathrm{T}}$		"	the transpose of a matrix
vectorproduct				
	$\times$		"	the vector cross product operator
nums1.ocd (*official*)				
e	e		(4.2.11)	the exponential base
gamma	γ		(5.2.3)	the Euler constant
i	i		?	the imaginary unit
pi	π		(3.12.1)	the ratio of the circumference of a circle to its diameter
physical_consts1.ocd (*experimental*)				
Boltzmann_constant				
	k		CODATA	the Boltzmann constant
speed_of_light				
	c		CODATA	the speed of light
rounding1.ocd (*official*)				
ceiling	$\lceil x \rceil$		Intro.	the ceiling of a real number x
floor	$\lfloor x \rfloor$		"	the floor of a real number x
set1.ocd (*official*)				
size	$\|x\|$		§26.1	the cardinality of a set
setname1.ocd (*official*)				
C	$\mathbb{C}$		Intro.	the set of complex numbers
N	$\mathbb{N}$		"	the set of 'natural' numbers (positive integers)
Q	$\mathbb{Q}$		"	the set of rational numbers
R	$\mathbb{R}$		"	the set of real numbers
Z	$\mathbb{Z}$		"	the set of integers
transc1.ocd (*official*)				

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cos	$\cos(z)$	$\mathbb{C} \to \mathbb{C}$	(4.14.2)	the cosine function
cosh	$\cosh(z)$	"	(4.28.2)	the hyperbolic cosine function
cot	$\cot(z)$	"	(4.14.7)	the cotangent function
coth	$\coth(z)$	"	(4.28.7)	the hyperbolic cotangent function
csc	$\csc(z)$	"	(4.14.5)	the cosecant function
csch	$\operatorname{csch}(z)$	"	(4.28.5)	the hyperbolic cosecant function
exp	$\exp(z)$	"	(4.2.19)	the exponential function
ln	$\ln(z)$	"	(4.2.2)	the principal branch of logarithm function
log	$\log_a(z)$	$\mathbb{C} \times \mathbb{C} \to \mathbb{C}$	§4.2	the logarithm to general base a
sec	$\sec(z)$	$\mathbb{C} \to \mathbb{C}$	(4.14.6)	the secant function
sech	$\operatorname{sech}(z)$	"	(4.28.6)	the hyperbolic secant function
sin	$\sin(z)$	"	(4.14.1)	the sine function
sinh	$\sinh(z)$	"	(4.28.1)	the hyperbolic sine function
tan	$\tan(z)$	"	(4.14.4)	the tangent function
tanh	$\tanh(z)$	"	(4.28.4)	the hyperbolic tangent function
veccalc1.ocd ***(official)***				
curl	curl		(1.6.22)	the curl operator
divergence	div		(1.6.21)	the divergence operator
grad	grad		(1.6.20)	the gradient operator
Unclassified				
AGM	$M(a, g)$		§19.8(i)	arithmetic-geometric mean
Bohrradius	a_0		CODATA	the Bohr radius
Diracdelta	$\delta(x)$		§1.17(i)	the Dirac delta functional (or distribution)
Diracdeltaseq	$\delta_n(x)$		"	the Dirac delta sequence
FiniteSet	$\{x_0, \dots\}$		?	elements of the finite set
Fouriercostrans	$\mathscr{F}_c(f)$		(1.14.9)	the Fourier cosine transform of a function
Fouriersintrans	$\mathscr{F}_s(f)$		(1.14.10)	the Fourier sine transform of a function
Fouriertrans	$\mathscr{F}(f)$		(1.14.1)	the Fourier transform of a function
Fouriertransdist	$\mathscr{F}(f)$		(1.16.35)	the Fourier transform of a distribution
HeavisideH	$H(x)$		(1.16.13)	the Heaviside function
Hilberttrans	$\mathcal{H}(f)$		§1.14(v)	the Hilbert transform of a function
Kroneckerdelta	$\delta_{j,k}$		Intro.	the Kronecker delta
Laplacetrans	$\mathscr{L}(f)$		(1.14.17)	the Laplace transform of a function
Lattices				

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CD:Name	*Notation*	*Signature*	*Declared*	*Proper Name*
	$\mathbf{L}$		?	the set of Lattices on the complex plane (in the sense of elliptic functions)
`LauricellaFD` ($\stackrel{?}{\equiv}$`hypergeon2:LauricellaFD`)				
	$F_D(x;y;z;p)$	$\mathbb{C}\times\mathbb{C}\times\mathbb{C}\times\mathbb{C}\to\mathbb{C}$	§19.15	Lauricella's (multivariate) hypergeometric function
`Matrices`				
	$T^{\bullet\times\bullet}(T)$		?	Matrices with elements of the given type; dimensions $n\times m$
	$T^{n\times\ m}(T)$			
`Mellintrans`				
	$\mathscr{M}(f)$		(1.14.32)	the Mellin transform of a function
`Pade`	$[p/q]_f(z)$		§3.11(iv)	the Padé approximant
`Rydbergconst`				
	R_∞		CODATA	the Rydberg constant
`Schwarzian`				
	$\{z,\zeta\}$		(1.13.20)	the Schwarzian
`Stieltjestrans`				
	$\mathcal{S}(f)$		(1.14.47)	the Stieltjes transform of a function
`Tuples`	$T^\bullet$		?	n-Tuples of elements of type T
	T^n			
`Vectors`	$T^\bullet(T)$		"	Vectors with elements of type T; dimension n
	$T^n(T)$			
`Wronskian`				
	$\mathscr{W}\{w_1,w_2\}$		(1.13.4)	the Wronskian
`cartprod`				
	$\times$		§23.1	the Cartesian product operator
`continuous[]`				
	$C(a,b)$		§1.4(ii)	the set of functions continuous on the interval (a,b)
`continuous`				
	$C^n(a,b)$		§1.4	the set of continuous functions n-times differentiable on the interval (a,b)
`diag`	diag		?	the diagonal elements
`diffd`	d		"	the differential operator
`electricconst`				
	ε_0		CODATA	the electric constant or vacuum permitivity
`env`	env f		?	the envelope of a function
`exptrace`				
	$\mathrm{etr}(\mathbf{X})$		§35.1	the exponential of the trace
`finestructureconst`				
	α		CODATA	the fine-structure constant
`intinnerprod`				
	$\langle\Lambda,\phi\rangle$		§1.16(i)	the inner-product (by integration)
`log`	$\log(z)$	$\mathbb{C}\to\mathbb{C}$	§4.2	the logarithm to base 10
`nonnegIntegers`				
	$\mathbb{Z}^*$		?	the set of non-negative integers
`pgcd`	$(a_1,\dots,a_n)$		§27.1	the greatest common divisor
`posIntegers`				

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CD:Name	*Notation*	*Signature*	*Declared*	*Proper Name*
	$\mathbb{Z}^{+}$		?	the set of positive integers
`setmod`	$/$		§21.1	the set modulus operator
`shiftfactorial`				
	$[a]_{k}$		(35.4.1)	the partitional shifted factorial
`sign`	$\operatorname{sign}(x)$		Intro.	the sign of a number x
`trace`	tr		"	the trace of a matrix
`variation[]`				
	$\mathcal{V}(f)$		(1.4.33)	the total variation of a function
`variation`				
	$\mathcal{V}_{a,b}(f)$			the total variation of a function on an interval
`zonalpolyZ`				
	$Z_{\kappa}(\mathbf{T})$		§35.4(i)	the zonal polynomial