01141 COMPLEX ANALYSIS 2005

Short Dictionary

Translation from English to Danish

A

Absolute value = absolut værdi, 8
Absolute convergence = absolut konvergens, 237
Accumulation point = akkumulations-punkt, 43
Analytic continuation = analytisk fortsættelse, 292
Analytic function = analytisk funktion, 70
Antiderivative = stamfunktion, 173
Arc = kurve uden selvgennemskæringer, 150
Argument = argument, 17
Arctic circle = (nordlig) polarcirkel, 45

B

Bijective = bijektiv
Bilinear transformation = bilineær transformation, 389
Binomial formula = binomial formel, 6, 250
Boundary = rand, 42
Bounded set = begrænset mængde, 42
Branch = gren, 122, 132
Branch of argument = gren af argument, 18
Branch of logarithm = gren af logaritme, 119
Branch, principal = hovedgren, 18, 119
Branch cut = forgreningssnit, 18, 119
Branch point = forgreningspunkt, 122

C

Cauchy criterion = Cauchy kriterium, 262
Cauchy estimates = Cauchy vurderinger, 214, 215
Cauchy product = Cauchy produkt, 247
Cauchy sequence = Cauchy følge, 262
Cauchy series = Cauchy række, 263
Cauchy's integral formula = Cauchy's integralformel, 204, 210, 211
Cauchy's integral theorem = Cauchy's integralsætning, 187, 194
Cauchy-Riemann equations = Cauchy-Riemann ligningerne, 73
Chain rule = kæderegel, 69
Chordal distance = kordeafstand, 49
Circle of convergence = konvergenscirkel, 253
Closed contour = lukket kontur, lukket kurve, 157
Closed disk (set) = afsluttet cirkelskive (mængde), 42
Compact = kompakt, 42
Comparison test = sammenligningskriterium, 236
Complex conjugate = kompleks konjugeret, 10

Complex number = komplekst tal, 3
Complex plane = kompleks plan, 8
Complex plane, extended = udvidet kompleks plan, 288
Conformal = konform, 378
Conjugate = konjugeret, 10
Connected set = sammenhængende mængde, 40, 44
Contour = kontur, kurve, 154
Contour, integral along = kurveintegral, 162, 167
Contour, length of = længde af kurve, 159
Convergence = konvergens, 58
Convergence, Cauchy criterion for = Cauchy kriteriet for konvergens, 262
Convergence, absolute = absolut konvergens, 237
Convergence, pointwise = punktvis konvergens, 238
Convergence, uniform = uniform eller ligelig konvergens, 238
Cross-ratio = dobbeltforhold, 397
Curve = kurve, 149

D

De Moivre's formula = De Moivre's formel, 29
Deformation invariance theorem = deformations-sætningen, 186
Deformation of contours = deformation af konturer (eller kurver), 182
Denominator = nævner
Derivative = afledet, 67
Differentiability = differentiabilitet, 67
Differential equation = differentialligning, 67
Differential equation, power series = potensrækker og differentialligning, 258
Distance = afstand, 9
Directed smooth arc = orienteret glat kurve uden selvgennemskæringer, 152
Dirichlet problem = Dirichlet problem, 222
Dirichlet problem for unit disk = Dirichlet problem for enheds cirkelskiven, 224
Disk = cirkelskive
Domain = område, domæne, 40
Domain of analyticity = analyticitetsområde
Domain of conformality = område hvor funktionen er konform, 378
Domain of definition = definitionsmængde, 53

E

Entire function = hel function, 70
Equipotential = ækvipotential, 81
Essential singularity = væsentlig singularitet, 279, 282
Essential singularity at infinity = væsentlig singularitet i uendelig, 288
Euler's equation = Euler's ligning, 27
Exponential function = eksponential funktion, 27, 111
Extended complex plane = udvidet kompleks plan, 48, 288

F

Fibonacci sequence = Fibonacci følge, 268
Fixed point = fikspunkt, 92
Focus, focal point = brændpunkt
Fractals = fraktaler, 93
Fundamental region = fundamentalmængde (eller område), 112
Fundamental theorem of algebra = algebraens fundamentalsætning, 101, 216, 362
Fundamental theorem of calculus = integralregningens fundamentalsætning, 161

G

Generalized Cauchy integral formula = generaliseret Cauchy integralformel, 210, 211
Generalized circle = generaliseret cirkel, 388
Geometric series = kvotientrække, 236
Great circle = storcirkel, 50
Green's theorem = Green's sætning, 192

H

Harmonic conjugate = harmonisk konjugeret, 80
Harmonic function = harmonisk funktion, 79, 221
Holomorphic function = holomorf funktion, 70
Hyperbolic functions = hyperbolske funktioner, 114

I

Image = billede, 53
Imaginary axis = imaginær akse, 8
Improper integrals = uegentlige integraler, 337
Independence of path = uafhængighed af vejen, 173
Infinity (point at) = uendelig (punkt i), 288
Initial point = begyndelsespunkt, 173
Integral = integral, 162
Integral, bounds for = grænser for integral, 169
Integral, contour = kurveintegral, 167
Integration by parts = partiel (eller delvis) integration, 179
Interior point = indre punkt, 39
Inverse trigonometric functions = inverse trigonometriske funktioner, 134
Inversion = inversion, 55, 387
Isolated singularity = isoleret singularitet, 277
Isotherms = isotermer, 81, 419

J

Jacobian = Jacobiant, 78
Jordan curve theorem = Jordan's kurvesætning, 158
Joukowski, 57, 438
Julia set = Julia mængde, 92

L

L'Hôpital's rule = L'Hôpital's regel, 72, 261
Laplace's equation = Laplace's ligning, 79, 221, 369

Laurent series = Laurent række, 269
Leibniz's formula = Leibniz's formel, 248
Level curve = niveau kurve, 81
Limit = grænse, 58
Linear transformation = lineær transformation, 57, 385
Liouville's theorem = Liouville's sætning, 215, 226
Logarithm = logaritme, 118
Loop = løkke, 157

M

Maclaurin form = Maclaurin form, 103
Maclaurin series = Maclaurin række, 242,
Magnification = skalering, 57, 385
Mandelbrot set = Mandelbrot mængden, 93
Mapping = afbildning, 53
Maximum modulus principle = maksimum modulus princip, 217
Maximum principle = maksimum princip, 222
Mean-value property = middelværdi egenskab, 226
Meromorphic = meromorf, 355
Minimum modulus principle = minimum modulus princip, 220
Minimum principle = minimum princip, 222
Möbius transformation = Möbius transformation, 389, 396, A-19
Modulus = modulus, 8
Multiple-valued = flertydig, 118
M-test = Weierstrass majorant kriterium, 263

N

Neighborhood = omegn, 39
Numerator = tæller

O

One-to-one function = en-til-en eller en-entydig funktion, 111
Open disk (set) = åben cirkelskive (mængde), 39
Open mapping property = åben afbildningsegenskab, 363
Orbit = bane, 91
Order relation = ordnings relation, 7

P

Parametrization = parametrisering, 149, 154
Partial fraction decomposition = dekomponering i stambrøker, 105
Partial fractions = stambrøker, 105
Partial sum = afsnit, 235
Picard's theorem = Picard's sætning, 282
Piecewise smooth curve = stykkevis glat kurve, 157
Pointwise convergence = punktvis konvergens, 238
Polar form = polær form, 18
Pole = pol, 104, 279

Pole of order m (or multiplicity) = pol af orden m (eller multiplicitet), 104, 279
Polygonal path = polygonal sti (eller vej), 39
Polynomial = polynomium, 61
Polynomials = polynomier, 99
Potential = potential, 200
Power series = potensrække, 252
Primitive mth root of unity = primitiv m-te enhedsrod, 34
Principal branch = hovedgren, 119
Principal value of argument = hoverværdi af argument, 18
Principal value of logarithm = hovedværdi af logaritme, 119
Principal value of integral = hovedværdi af integral, 319
Pure imaginary number = rent imaginært tal, 4

Q

Quadratic formula = løsningsformel til rødder i kvadratisk polynomium, 36

R

Radius of convergence = konvergensradius, 253
Range = værdimængde, 53
Ratio test = kvotientkriterium, 237
Rational function = rational funktion, 62, 99
Real axis = reel akse, 8
Regular = regulær, 70
Removable discontinuity = hævelig diskontinuitet, 62
Removable singularity = hævelig singularitet, 279
Residue = residuum eller residue, 109, 308
Residue theorem = residue sætning, 312
Resistance = modstand, 139
Riemann hypothesis = Riemann hypotesen, 268
Riemann mapping theorem = Riemann's afbildningssætning, 380
Riemann sphere = Riemann-kuglen, 45
Riemann sum = Riemann sum, 162
Riemann zeta function = Riemann's zeta funktion, 268
Roots of unity = enhedsrødder, 34
Rotation = rotation, 57, 384

S

Schwarz-Christoffel transformations = Schwarz-Christoffel transformationer, 407
Sequence = følge, 235
Series = uendelig række, række, 235
Simple pole = simpel pol, pol af orden 1, 280
Simple zero = simpelt nulpunkt, nulpunkt af orden 1, 278
Simply connected domain = enkeltsammenhængende område, 184, 193
Single-valued = entydig (ikke at forveksle med one-to-one = en-entydig), 118
Singular part = singulær del, 107
Singularity = singularitet, 278, 279

Singularity, essential = væsentlig singularitet, 279
Singularity, pole = pol, 279
Singularity, removable = hævelig, 279
Slit plane = opskåret plan
Smooth arc = glat (eller regulær) kurve uden selvgennemskæring, 150
Smooth closed curves = glatte (eller regulære) lukkede kurver uden selvgennemskæring, 150
Streographic projection = stereografisk prjektion, 44
Strip = strimmel

T

Taylor form = Taylor form, 103
Taylor series = Taylor række, 242
Terminal point = endepunkt, 173
Translation = translation, parallelforskydning, 57, 384
Triangle inequality = trekantsulighed
Trigonometric functions = trigonometriske funktioner, 113, 114
Tropic of Cancer = (Krebsens) vendekreds, 45

U

Uniform convergens = uniform eller ligelig konvergens, 238, 239

W

Washer = pakning, 125
Wedge = kile, 126
Weierstrass M-test = Weierstrass majorant kriterium, 263

Z

Zero of order m = nulpunkt af orden m, 277