Duplicated set

Resumé of book

Notes on polynomials and rational functions

Text and slides for talk on how to find the centre of a spiral

Cr. original + copy

Original handwritten copy of paper on functional interpolation!

⊛ On the backs of these preliminary notes appear the preliminary notes to Claessens[5], Cordellier and further forms of the ε-algorithm! (interleaved with various Zbl. review notes)

Notes on factor relationships of the form $c = Ed$

Further notes on polynomials and rational functions

The principal and alternating sums of a function defined over a strip in the complex plane

Copies of titles of Xerox copied papers

Original + copy of paper on functional interpolation!

Xerox copy of ⊛!

Xerox copy of polynomial and rational function theory + some original pages!

Xerox copy of interpolation theory leading to preliminary theory of polynomials and rational functions

Xerox copy of notes on quotient extensions, denominators, lifting factors etc.

Xerox copy of notes on mapping functions

Xerox copy of final notes △ - /67

Xerox copy of notes on linear equations in commutative ring (1) - /38

Xerox copy of rough notes on quot esctensions etc.

Xerox copy of notes on Bürmann series over a field and factorisation of triangular matrix

Xerox copy of paper on functional interpolation

Xerox copy of stratified field theory concerning LU decomposition Jacobi, Schwerins etc ⟨1⟩ – ⟨105⟩

Transfer ⊛ on Claessens, Cordellier etc. to ~~duplicated set~~ original set ✓

" original of paper on functional interpolations " " ✓

Xerox copy new Cordellier ✓ paper + Zbl. review + others ⇒ duplicated set ✓

" resumés of Jacobi, Warner theses... " "

" Zbl. review of evaluation of singular + highly oscillatory integrals...

Xerox copy of first notes on stratified field ⇒ dup. set.

" " " notes on truncation error bounds for assoc. c.f.s

Retain one typed copy of paper on rational approximations to the exponential fn. in dup. set others ⇒ original set ✓

Xerox copies of pp 31–35 of notes on extraction of tst. mon. seq. from coeffts of c.f. ⇒ dup set

1 copy of Bull Hex Mat. Soc paper ⇒ dup set ✓

Copy notes on variants of the remainder terms of Euler Maclaurin + Bode series ⇒ dup. set

Copy notes on Zeta functions of positive integer order ⇒ dup set

" " establishing connections between classes of complex variable (8–14; 21–25; 29, 30, 32) ⇒ dup set

" " on attempts to generalise Gal δ-algorithm integration process (8–26) ⇒ dup set

Copy Amsterdam Numerical eff. profile function programme

" " Algol programmes on Cayley numbers etc.

" paper on commuting Cayley numbers (or extract copy)

" Th. from rough notes on principal and alternating sum?

Copy paper on sequel to abstract theory of ε-alg.?

Copy paper on Continued fraction transformation of Euler–Maclaurin ser. ✓

" notes on integral transform of continued fractions ✓

" notes on analytic function continuation of fns. def. by int. trans (41–58) 88–97 ‖ 1–26 32–43 47–48

" Zbl. Reviews Mikhalchuk ... Sgavarko. ✓ ✓

Interpolation theory

Notes on rational interpolation over field K with nonconfluent arguments

Relationships between factorial polynomials, divided difference multipliers, Lagrange multipliers, Lagrange & Newton & Jacobi interpolation forms.

Matrix formulations Operators between systems

Rational function interpolation. Derived from systems of equations.

Direct by use of special functions.

Extension to confluent arguments

Extension to transformations of Schwein's series (Notes missing?)

Initial definitions of types, sets, sequences, mappings, source domains of variable type

Polynomials and rational functions

Homogeneous constraints systems coefficient spaces, constraint systems subordinate to coefficient mapping systems. Boundary of constraint system. Polynomial spaces Normalising condition Normalised polynomials Rational functions

Sequences

Multiplication, sections, groups, sections of products equal to products of sections etc

Mappings of variable type sections $C^{\S}$ operations upon sections $C^{\S} | C^{\S} = C^{\S+\S}$ $(C^{\S})^{\omega} = C^{\S\omega}$ etc

Definitions of mapping systems constancy nonsingularity

Conditions upon constraints upon c and e inducing $c = De$

Zbl. Rev. of Jones + Reid Springer Lecture Notes 932 (1982) 106-128 Zbl. 508.30037

Editorial Advice from Rend. Sem. Mat. Un. di Padova

Bibliography on Lagrange + Markoff spectra etc (from Malyshev)
" on Moment Prob etc.
" from papers by Gerasimus

Paper: Interpolation by the use of rational functions, replacing x_i by $(\lambda - x_i)^{-1}$
etc. Interpolation $\Leftrightarrow$ extrapolation

Functional interpolation (+Xerox copy)

Zbl. Review of The evaluation of singular and highly oscillatory integrals by use of the anti-derivative, Calcolo, 15 Fasc 4 bis, 1-103 (1978)

Numal in Fortran introduction + lecture notes + file numbers

Notes
Paper on Bürmann series over field and factorisation of triangular matrix. (add cover?)

Notes on stratified field and determinantal identities in such fields
$(|c| = |a||b| \quad c = ab)$ $|adj(a)^{(i,j)}| = |a|^{n-k-1} |a^{(I,J)}|$ LU decomp.

Notes on stratified field (+ Xerox copy!) (add cover?)
Last notes △-⛤
Notes on quotient extensions, denominators, lifting factors etc (add cover?) ⊕
Notes on mappings 1-80 (partly written on back of Xerox copy of △-⛤)
Notes providing inventory of results on isomorphism, mult mod, denominator, ...
possibly used in construction of (*) (+ Xerox copy)

Notes on truncation error bounds for associated continued fractions
(from Rakhmanov, Szegö Geronimus Gragg Markoff
Convergence result for asso. c.f. $\Rightarrow F(\alpha) = \int_\alpha^\beta (\lambda - s)^{-1} d\frac{1}{3}(s)$ (X. copy?)

⊕ Notes on interpolation and extrapolation (incorporated in later version)
Notes on rational interpolation formulae, recursions for denominators
Bürmann series

Resumés of Jacobi: Crelle 30 (1846) 127–156 // Warner thesis // Netto: Math. Ann. 42 (1893) 453–456 // Meinguet // Wuytack; Num Math 20 (1973) 418–424 // Claessens Num. Math. 29 (1978) 227–231 also A generalisation of the q-d algorithm Univ. of Antwerp Report (1978) Graves Morris PR A generalised q-d algorithm Math. Inst Univ. Kent (1978) Muhlbach G., Num Math, 31 (1978) 97–110; 32 (1979) 393–408 Kronecker L., Berlin Ber. (1881) 535–600 (from Dienes) Bauer Muir from Perron

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Referee's report on Claessens G: A generalisation of the q-d algorithm & Convergence of multipoint Padé approximants.

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preparatory notes to ⊕

Appendix to §§ 1: The asymptotic expansion of positive real functions (appendix to paper on stability functions?) + 3. Multiplicative properties preparatory notes to paper on stability functions

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Notes Rough notes on Pick Nevanlinna problem using derivative values also Theorem stated.

Rough notes: attempts to exhibit the product of two F-functions as an F-function

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Rough notes on $\sigma\rho\eta$ algorithms: generalised rational approximation & continuation

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Rough notes on stability functions. 3
Rough draft of paper on stability functions
Rough notes and draft of paper on extended Pick Nevanlinna problem

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Paper on stability functions
Later version

Notes giving statement of Hamburger Pick Nevanlinna problem + results
Rough notes on HPN problem

× Handwritten copy: On rational approximations to the exponential function
Rough notes Typed copies

Paper on integral transforms of c.fs. array of functions

Notes on extraction of tot. mon. seq. from convgts. of c.f. (dup. pp. 31–35?)

Paper: The principal and alternating sums of a function defined over a strip in the complex plane

× Aygol ε-alg programmes from Amsterdam

Copies of c.v.

Notes + 5 transparent copies of talk on how to find the centre of a spiral

× + 1 copy

Copies of titles of Xerox copied papers

× Copies of Bull Mex Math. Soc. paper

Copies of Trans. to accelerate the convergence of Fourier series, Rocky Mountain Jour of Maths reviews papers, Nörlund Ch. 15

Notes on Variants of the remainder terms of the Euler Maclaurin and Boole series (copy)

Notes on Zeta functions of positive integer order (copy?)

Notes: Establishes connections between various classes of functions of a complex variable (copy pp. 8 – 14½; 21 – 25, 29, 30 32?)

Xeroxed copies of pages on Lagrange expansion, also pages from
Goluzin G.M., Geometric theory of functions of a complex variable, Amer Math Soc. Translations of Mathematical Monographs 26 (1969) pp 76 – 89, 306 – 309, 476 – 487
+ page on Faber polynomials. (from Ahlfors L.V. Complex analysis, McGraw Hill (1966))

Notes on attempts to generalise β and γ – algorithms integration process by considering $I(\psi,\mu) = f(\mu)J(\mu) = \int_a^\infty \psi(\mu')\,d\mu'$ J slowly varying (copy pp 8 – 26?

Rough notes on investigation of special cases in which coefficients of continued fractions corresponding to approximating fractions may be exhibited in closed form, using van der Corput & Dupare theory

Rough notes on convergence of noncommutative continued fractions

Rough notes on expression of moments as continued fraction integrals

Rough notes on iterated transforms of form $F_1(F_2(\ldots))$ where

$$F_i(z) = \int_0^\infty \frac{d\psi_i(\beta)}{1+z\beta}$$

X WI Card data

X Notes on eigenvalues of $\begin{pmatrix} 0 & D & \cdot & \cdot \\ -D & 0 & D & \cdot \\ 0 & -D & 0 & \cdot \\ \cdot & \cdot & \cdot & \cdot \end{pmatrix} D = \begin{pmatrix} 0 & -1 & \cdot & \cdot \\ 1 & 0 & -1 & \cdot \\ 0 & 1 & 0 & \cdot \\ \cdot & \cdot & \cdot & \cdot \end{pmatrix}$ ie. DxD

Paper Zur Theorie der Padé'schen Tafel

Rough notes on connections between ρ- & ε-algs

Rough notes on auxiliary transformations of sequences before application of ε-alg

Rough notes on transformation of monotonic sequence by means of ε-alg.

Reference to Ankeny-Artin-Chowla: Ann of Math 56 (1952) 479-493

Amsterdam Algol programmes and results on Numerical efficiency profile functions

Ann Math referee's report on the algebra of formal power series

Paper Commuting Cayley numbers.

Rough note on explanation of physical significance of $\int_a^b \frac{d\sigma(t)}{z-t}$ (see also Rothe Ollendorff & Pohlhausen, Theory of Functions as applied to engineering problems (Dover?) p 106?)

Rough notes on principal & alternating sum (copy Th. ?)

Rough notes on the Euler Maclaurin series

Rough notes on extensions of determinantal relationships, algorithmic recursions, etc. to noncommutative, possibly nonassociative elements, by use of linear algebraic equations

Rough notes on derivation of expressions representing ε-algorithm vectors by differentiation of scalar expressions involving inner product

Rough notes on expression in closed form of vectors produced by vector ε-algorithm & other forms

Handwritten Algol programmes concerning Cayley numbers etc. ξ_x (executed at Amsterdam)

Documentation and programmes concerning synapse problem of
X J Winslow (McGill)

Paper on sequel to abstract theory of ε-alg.
Rough notes on above

X Typewritten copies of Bol. Soc. Mat. de Mex. papers

Rough documentation & CDC Algol programmes concerning optimisation,
X iterated rect ε-algorithm etc executed at Montreal

Algol programme concerning integral transform of continued fraction (executed at Madison ?)

Rough notes on investigation of interpolatory ε-algorithm

Xerox copies of pages from Lanczos, Applied Analysis; Szegö Orthogonal polynomials (on Mechanical Quadrature) & Baker on extension of Padé quotients

Paper on Continued fraction transformations of the Euler-Maclaurin series
Rough notes to above

Xerox copied pages from Whittaker & Watson on the Gamma fn.

Rough notes on analytic continuation of functions defined by integral transform (Copy pp. 41–53?)

Further rough notes on above (copy pp. 88–97?) Still further notes (copy pp 1–26; 32–~~38~~ 43? 47, 98?

Zbl. reviews of Mikhal'chuk RI and Syavavko MS, A continuous analogue of continued fractions, Ukr. Mat Jour, 34 No 6 (1982) 559–564

Batyuk Yu R and Syavavko MS, Integral continued fractions, Ukr. Mat Jour? (1984) 6–8

Jones and Thron?

Tokuda N, A new application of Lagrange–Bürmann expansions I General principle, ZAMP 34 (1983) 697–727; II Application to unsteady heat conduction problems with radiation, 34 (1983) 787–806.

also. (1 copy + 2 copies of review?)

Cordellier F, Utilisation de l'invariance homographique dans les algorithmes de Tosange, Springer Lecture Notes? (1984??) 62–94

("The rough notes upon which this review was based have been mislaid. They contain determinantal proofs of Claessen's form, of the new form given by Cordellier and of a further variant stated in the review. They also contain a treatment of a rational ~~approxim~~ interpolating fraction treated as a Schweins quotient using denominator and numerator mappings of the form 1,0,0,... and 0,1,0,... and a treatment of divided differences by way of decomposing a triangular matrix into a product of lower band diagonal matrices leading to an extension of rational interpolation theory to the transformation & general Schweins series) ← found in duplicated set