

| Chilean Time<br>UTC -3 |       |   |   |
|------------------------|-------|---|---|
| Start                  | End   | MONDAY 10 JANUARY 2022  |   |
| 09:00                  | 09:10 | OPENING: Luis Salinas   |   |
| 09:10                  | 09:20 | STEPHAN RUSCHEWEYH IN MEMORIAM: Meenaxi Ruscheweyh  |   |
| 09:20                  | 09:30 | CMFT-2021 AWARD PRESENTATION: Doron S. Lubinsky   |   |
| 09:30                  | 09:45 | BREAK   |   |
| 09:45                  | 10:45 | ERIK LUNDBERG<br>ON THE GEOMETRY OF RANDOM LEMNISCATES<br>CMFT-2021 Award Recipient Lecture<br>Chair: Doron S. Lubinsky                                 |   |
| 10:45                  | 11:00 | BREAK   |   |
| 11:00                  | 11:15 | SOME CONFERENCE TECHNICAL ANNOUNCEMENTS   |   |
|                        |       | <b>TRACK A – Chair: Risto Korhonen</b>  | <b>TRACK B – Chair: Karl Grosse-Erdmann</b>   |
| 11:15                  | 11:45 | FRODE RONNING<br>A Retrospective Look at CMFT   | XIANG-SHENG WANG<br>Applications of orthogonal polynomials<br>in numerical analysis   |
| 11:45                  | 12:15 | IASON EFRAIMIDIS<br>Criteria for univalence and quasiconformal extension<br>for harmonic mappings on planar domains                                     | LIUDMYLA KRYVONOS<br>Polynomial approximation of piecewise analytic<br>functions on quasi-smooth arcs   |
| 12:15                  | 12:45 | VLADIMIR ANDRIEVSKII<br>On Hilbert lemniscate theorem for a system of continua  | ABEY LOPEZ-GARCIA<br>Asymptotic properties of greedy energy sequences on<br>the unit circle<br>(joint work with Ryan McCleary)                                |
| 12:45                  | 13:45 | LUNCH TIME  |   |
| 13:45                  | 14:45 | EDWARD SAFF<br>On Connecting Equilibrium Measures with Quadrature Domains<br>(Joint work with Alan Legg and P.D. Dragnev).<br>Chair: Laurent Baratchart |   |
| 14:45                  | 15:00 | BREAK   |   |
|                        |       | <b>TRACK A – Chair: Myrto Manolaki</b>  | <b>TRACK B – Chair: Dmitry Karp</b>   |
| 15:00                  | 15:30 | NILANJAN DAS<br>The Bohr phenomenon for operator-valued<br>holomorphic functions  | IGOR CHYZHYKOV<br>On weighted classes of analytic and subharmonic<br>functions in the unit disc   |
| 15:30                  | 16:00 | FERNANDO LEÓN-SAAVEDRA<br>Extended eigenvalues of composition operators   | AVRAM SIDI<br>Asymptotic Expansions and Spectrally Convergent<br>Numerical Quadrature Methods for Hadamard Finite<br>Parts of Periodic<br>Divergent Integrals |
| 16:00                  | 16:30 | SERHII FAVOROV<br>Uniqueness Theorems for Fourier Quasicrystals and<br>Temperate Distributions<br>with Discrete Support                                 | ISTVAN PRAUSE<br>Random Young tableaux and harmonic envelopes   |
| 16:30                  | 17:00 | IRYNA DENEGA<br>On one inequality of M. A. Lavrentyev   | JUNQUAN XIAO<br>Coninvolutory matrices, multi-affine polynomials, and<br>invariant circles  |

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| Start                  | End   | TUESDAY 11 JANUARY 2022  |  |
| 09:00                  | 10:00 | <b>MARTIN CHUAQUI</b><br>On Ahlfors' Schwarzian derivatives in Euclidean Space<br>Chair: Luis Salinas  |  |
| 10:00                  | 10:10 | BREAK  |  |
|                        |       | <b>TRACK A – Chair: Hans-Peter Blatt</b>   | <b>TRACK B – Chair: Richard Fournier</b>   |
| 10:10                  | 10:40 | <b>VASILY PROKHOROV</b><br>Characteristic polynomials of random banded<br>Hessenberg matrices and Hermite-Pade approximation<br>(joint work with A. López-García)              | <b>RISTO KORHONEN</b><br>Delay differential Painlevé equations and Nevanlinna<br>theory  |
| 10:40                  | 11:10 | <b>RAUL CURTO</b><br>The Beurling-Lax-Halmos Theorem for infinite<br>multiplicity  | <b>JAN ZUR</b><br>The transport of images method: computing all zeros of<br>planar harmonic mappings by continuation   |
| 11:10                  | 11:40 | <b>KLAUS SCHIEFERMAYR</b><br>Walsh's conformal map of polynomial<br>pre-images onto lemniscatic domains<br>(joint work with Olivier Sète)                                      | <b>MASIMBA NEMAIRE</b><br>Silent sources and equivalent $L^p$ -magnetizations.<br>(joint work with L. Baratchart and J. Leblond)   |
| 11:40                  | 11:50 | BREAK  |  |
|                        |       | <b>TRACK A – Chair: Elias Wegert</b>   | <b>TRACK B – Chair: Abey López-García</b>  |
| 11:50                  | 12:20 | <b>ANDREI MARTINEZ-FINKELSHEIN,</b><br>Electrostatic partners and zeros of orthogonal and<br>multiple orthogonal polynomials<br>(joint work with R. Orive and J. Sánchez-Lara) | <b>NIKOS STYLIANOPOULOS</b><br>Moment Problems in the Plane and Trace Formulas in<br>Operator Theory   |
| 12:20                  | 12:50 | <b>RICHARD FOURNIER</b><br>An extremal problem for polynomials over the unit disc<br>of the complex plane  | <b>PAUL ASENSIO</b><br>Surface identification through rational approximation of<br>the back-scattering of an electromagnetic plane wave<br>(joint work with L. Baratchart, J. Leblond,<br>M. Olivi and F. Seifert) |
| 12:50                  | 13:20 | <b>NICK TREFETHEN</b><br>Reciprocal-log or "log-lightning" approximation   | <b>HANS-PETER BLATT</b><br>A new necessary condition for maximal convergence<br>on unconnected sets  |
| 13:20                  | 14:20 | LUNCH TIME   |  |
| 14:20                  | 15:20 | <b>STEPHEN GARDINER</b><br>Harmonic extension through cylindrical and conical surfaces<br>Chair: Paul Gauthier   |  |
| 15:20                  | 15:30 | BREAK  |  |
|                        |       | <b>TRACK A – Chair: Stephen Deterding</b>  | <b>TRACK B – Chair: A. Martínez-Finkelshtein</b>   |
| 15:30                  | 16:00 | <b>RAMON ORIVE</b><br>Riesz energy problems with external fields<br>on unbounded conductors<br>(joint work with Peter Dragnev, Edward B. Saff<br>and Franck Wielonsky)         | <b>LUKAS GEYER</b><br>Critically fixed anti-rational maps<br>and gravitational lensing   |
| 16:00                  | 16:30 | <b>TOSHIYUKI SUGAWA</b><br>Geometric approach to generalized modular equations   | <b>ROMAN DMYTRYSHYN</b><br>Approximation of analytic functions of several variables<br>by multidimensional<br>A- and J-fractions with independent variables  |
| 16:30                  | 17:00 | <b>KONSTANTINOS MARONIKOLAKIS</b><br>Universal Radial Approximation in Spaces of Analytic<br>Functions   | <b>ALEXANDER APTEKAREV</b><br>On spectrum of a selfadjoint difference<br>operator on the graph-tree  |

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| Start                  | End   | WEDNESDAY 12 JANUARY 2022   |   |
| 09:00                  | 10:00 | <b>MASATOSHI NOUMI</b><br>Elliptic interpolation functions and their applications to q- and elliptic Selberg integrals<br>Chair: Ilpo Laine                           |   |
| 10:00                  | 10:10 | BREAK   |   |
|                        |       | <b>TRACK A – Chair: Katsuhiko Matsuzaki</b>   | <b>TRACK B – Chair: Frode Ronning</b>   |
| 10:10                  | 10:40 | <b>ASENA ÇETINKAYA</b><br>Quasi-Hadamard Product of Sakaguchi-Type Functions Defined By q-Difference Operator   | <b>GABRIELE BOGO</b><br>Accessory parameters for four-punctured spheres   |
| 10:40                  | 11:10 | <b>THU HIEN NGUYEN</b><br>On the conditions for the entire functions with non-monotonic second quotients of Taylor coefficients to belong to the Laguerre-Pólya class | <b>OLIVIER SÈTE</b><br>Number and location of pre-images under planar harmonic mappings (joint work with Jan Zur)   |
| 11:10                  | 11:40 | <b>PAUL GAUTHIER</b><br>Boundaries for families of functions on unbounded domains.  | <b>JAVIER SEGURA</b><br>Sharp bounds for special functions from the nullclines of related ODEs  |
| 11:40                  | 11:50 | BREAK   |   |
|                        |       | <b>TRACK A – Chair: Alexander Aptekarev</b>   | <b>TRACK B – Chair: Jiaxing Huang</b>   |
| 11:50                  | 12:20 | <b>TATYANA BARRON</b><br>On some holomorphic function spaces on the ball  | <b>MOHAMMAD SHIRAZI</b><br>A boundary value problem on polydisc   |
| 12:20                  | 12:50 | <b>ZHUAN YE</b><br>Inequalities Concerning Maximum Modulus and Zeros of Random Entire Functions   | <b>PETER DRAGNEV</b><br>On the Best Uniform Polynomial Approximation to the Checkmark Function (joint work with A. Legg, PFW and R. Orive)                    |
| 12:50                  | 13:20 | <b>RENATA DŁUGOSZ</b><br>Some results of Fekete-Szegő type for Bavin's families of holomorphic functions in $C^n$ (Joint work with Piotr Liczberski)                  | <b>TOMASZ BEBEROK</b><br>$L^p$ Markov exponent of certain UPC sets  |
| 13:20                  | 14:20 | LUNCH TIME  |   |
| 14:20                  | 15:20 | <b>IGOR PRITSKER</b><br>Extremal problems on integer polynomials via complex function theory<br>Chair: Doron S. Lubinsky  |   |
| 15:20                  | 15:30 | BREAK   |   |
|                        |       | <b>TRACK A – Chair: Claudio Torres</b>  | <b>TRACK B – Chair: Peter Dragnev</b>   |
| 15:30                  | 16:00 | <b>EDYTA TRYBUCKA</b><br>Majorization of the Temljakov operators for some Bavin families in $C^n$ (Joint work with R. Długosz and P. Liczberski)                      | <b>ELIAS WEGERT</b><br>Numerical range, Blaschke products, and Poncelet polygons (Joint work with Ilya Spitkovsky)  |
| 16:00                  | 16:30 | <b>ANNA VISHNYAKOVA</b><br>Necessary and sufficient conditions on Taylor coefficients for an entire function to belong to the Laguerre-Pólya class                    | <b>G. BROCK WILLIAMS</b><br>Dynamics of the Newton Maps of Rational Functions and $\tan(z)$ (joint work with R.W. Barnard, K. Bray, J. Dwyer and E. Williams) |
| 16:30                  | 17:00 | THOMAS HEMPFLING, SPRINGER VERLAG   |   |

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| Start                  | End   | THURSDAY 13 JANUARY 2022  |   |
| 09:00                  | 10:00 | MARIO BONK<br>Canonical embeddings of pairs of arcs – <b>POSTPONED TO FRIDAY !</b><br>Chair: Pekka Koskela  |   |
| 10:00                  | 10:10 | BREAK   |   |
|                        |       | <b>TRACK A – Chair: Gokalp Alpan</b>  | <b>TRACK B – Chair: Tatyana Barron</b>  |
| 10:10                  | 10:40 | JONATHAN TSAI<br>Carathéodory balls and proper holomorphic maps on multiply-connected planar domains  | ANTTI RASILA<br>Local distortion, multiplicity and boundary behavior of harmonic mappings   |
| 10:40                  | 11:10 | JIAXING HUANG<br>$A_x$ -Schanuel type theorems on functional transcendence via Nevanlinna theory  | BARTOSZ ŁANUCHA<br>On $k$ th-order slant Toeplitz operators and their compressions to model spaces (joint work with Małgorzata Michalska) |
| 11:10                  | 11:40 | MYRTO MANOLAKI<br>A function algebra providing new Mergelyan type theorems in several complex variables (joint work with J. Falco, P. Gauthier and V. Nestoridis) | <b>CANCELED</b><br>JOHN RYAN<br>Boundary value problems for Bosonic Laplacians  |
| 11:40                  | 11:50 | BREAK   |   |
|                        |       | <b>TRACK A – Chair: Ramón Orive</b>   | <b>TRACK B – Chair: Oliver Sète</b>   |
| 11:50                  | 12:20 | KATSUHIKO MATSUZAKI<br>BMO embeddings, chord-arc curves, and Riemann mapping parametrization  | TUEN WAI NG<br>Fridman Function, Injectivity Radius Function and Squeezing Function   |
| 12:20                  | 12:50 | GOKALP ALPAN<br>Widom factors for generalized Jacobi measures   | KARL GROSSE-ERDMANN<br>A curious difference between $H(D)$ and $H(C)$   |
| 12:50                  | 13:20 | LAURENT BARATCHART<br>Analytic approximation and Carleman formulas (joint work with Javad Mashreghi)  | STANISLAWA KANAS<br>Harmonic Archimedean and hyperbolic spirallikeness  |
| 13:20                  | 14:20 | LUNCH TIME  |   |
| 14:20                  | 15:20 | MALIK YOUNSI<br>Removability of planar sets<br>Chair: Tom Ransford  |   |
| 15:20                  | 15:30 | BREAK   |   |
|                        |       | <b>TRACK A – Chair: Stanislaw Kanas</b>   | <b>TRACK B – Chair: Vasily Prokhorov</b>  |
| 15:30                  | 16:00 | OLENA KARUPU<br>On some properties of functions realizing conformal mappings of simply connected domains  | LENKA MIHOKOVIC<br>Asymptotic expansions and symmetries on the set of mean functions  |
| 16:00                  | 16:30 | HUI LI<br>On the uniqueness of random entire functions (joint work with Jianyong Qiao and Zhuan Ye)   | TOMISLAV BURIĆ<br>Computation and analysis of the asymptotic behaviour of the compound means  |
| 16:30                  | 17:00 | DMITRII KARP<br>Integral representations for the ratios of the Gauss hypergeometric functions   | NOEL MERCHÁN<br>Multipliers and integration operators between conformally invariant spaces (Joint work with Daniel Girela)                |

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| Start                  | End   | FRIDAY 14 JANUARY 2022  |   |
| 09:00                  | 10:00 | CHRISTOPHER BISHOP<br>Fast conformal mapping via computational and hyperbolic geometry<br>Chair: Catherine Bénéteau |   |
| 10:00                  | 10:10 | BREAK   |   |
|                        |       | <b>TRACK A – Chair: Klaus Schieferrmayr</b>   | <b>TRACK B – Chair: Luis Salinas</b>  |
| 10:10                  | 10:40 | STEPHEN DETERDING<br>Bounded Point Derivations and Functions of Bounded Mean Oscillation                            | VASUDEVARAO ALLU<br>Bohr radius for Banach spaces on simply connected domains<br>(Joint work with Himadri Halder) |
| 10:40                  | 11:10 | MARIO KRNIC<br>Some new characterizations of inner product spaces in terms of the p-angular distance                | H. TURGAY KAPTANOĞLU<br>Kelvin-Möbius-Invariant Harmonic Function Spaces on the Unit Ball                         |
| 11:10                  | 11:20 | BREAK   |   |
| 11:20                  | 12:20 | MARIO BONK<br>Canonical embeddings of pairs of arcs<br>Chair: Pekka Koskela   |   |
| 12:20                  | 12:30 | BREAK   |   |
| 12:30                  | 13:00 | CLOSING SESSION: Pekka Koskela  |   |
|                        |       |   |   |