O P-S F N E T – Volume 28, Number 5 – September 15, 2021

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Calendar of Events:

November 8-12, 2021
Numerical Methods and Scientific Computing (NMSC21)
  Dedicated to Claude Brezinski for his 80th birthday and to the
  30th anniversary of the international journal Numerical Algorithms
Centre International de Rencontres Mathématiques (CIRM), Luminy, France
https://www.math.unipd.it/~nmsc21/index.html

January 10-14, 2022
9th International Conference on Computational Methods and Function Theory (CMFT 2021)
Federico Santa María Technical University, Valparaíso, Chile
http://cmft2021.inf.utfsm.cl/

May 23–27, 2022

Baylor Analysis Fest: From Operator Theory to Orthogonal Polynomials, Combinatorics,
and Number Theory
Baylor University, Waco, TX, USA
https://tinyurl.com/BAFconference

June 20–24, 2022

Combinatorics around the q-Onsager algebra, celebrating the 65th birthday of Paul Terwilliger
Kranjska Gora, Slovenia
https://conferences.famnit.upr.si/event/15/overview

June 13–17, 2022—new dates due to coronavirus pandemic.

OPSFA-16
Centre de Recherches Mathématiques, Montréal, Quebec, Canada
http://www.crm.umontreal.ca/2022/OPSFA22/index_e.php

July 5–8, 2022—new dates due to coronavirus pandemic.

Functional Analysis, Approximation Theory and Numerical Analysis (FAATNA)
Matera, Italy
http://web.unibas.it/faatna20/

August 8–12, 2022

OPSF-S9: Radboud OPSFA Summer School
Nijmegen, The Netherlands
https://www.ru.nl/radboudsummerschool/courses/2022/opsfa-summer-school/

Topic #1 ——— OP – SF Net 28.5 ——— September 15, 2021

From: OP-SF Net Editors
Subject: Announcement: 16th International Symposium on Orthogonal Polynomials (OPSFA-16)

16th International Symposium on Orthogonal Polynomials, Special Functions and Applications
Centre de Recherches Mathématiques, Montréal Canada
June 13–17, 2022

The 16th International Symposium on Orthogonal Polynomials, Special Functions and Applications (OPSFA16), organised by the Centre de Recherches Mathématiques will take place from June 13–17, 2022 in Montréal, Québec, Canada. The symposium is part of the Thematic Semester Symmetries: Algebras and Physics taking place at the CRM from May to December 2022.

Conferences in the OPSFA series provide a forum for mathematicians, physicists, computational scientists, and application scientists in other fields to communicate recent research results in the areas of orthogonal polynomials and special functions (OPSF). OPSF plays an essential role in analytical and computational investigations in applied mathematics. Information about previous conferences in the OPSFA series is available at: https://wis.kuleuven.be/events/archive/OPSFA

This symposium is an event of the SIAM Activity Group on Orthogonal Polynomials and Special Functions. The activity group promotes basic research in orthogonal polynomials and special functions; furthers the application of this subject in other parts of mathematics, and in science and industry; and encourages and supports the exchange of information, ideas, and techniques between workers

in this field and other mathematicians and scientists. The activity group also awards the Gábor Szegő Prize every two years to an early-career researcher for outstanding research contributions in the area of orthogonal polynomials and special functions, the recipient of which traditionally gives a colloquium during the symposium.

This conference will be dedicated to the memory of Richard Askey.

Invited Speakers (* to be confirmed)

- *Alexei Borodin, Massachusetts Institute of Technology, USA
- Tamara Grava, Scuola Internazionale Superiore di Studi Avanzati, Italy
- *Masahito Hayashi, Nagoya University, Japan
- *Nalini Joshi, The University of Sydney, Australia
- Rinat Kedem, University of Illinois at Urbana-Champaign, USA
- Stefan Kolb, Newcastle University, UK
- Gail Letzter, National Security Agency, USA
- Robert Milson, Dalhousie University, Canada
- Peter Paule, Johannes Kepler University, Austria
- *Beatrice Pelloni, Heriot-Watt University, UK
- Anne Schilling, University of California, Davis, USA
- Dennis W. Stanton, University of Minnesota, USA
- Luis Velazquez, University of Zaragoza, Spain
- Alexei Zhedanov, Renmin University of China, China

Organizers:
Hendrik De Bie (Universiteit Gent),
Mourad E. H. Ismail (University of Central Florida),
Erik Koelink (Radboud Universiteit Nijmegen),
Ana Loureiro (University of Kent),
Francisco Marcellán (Univ. Carlos III de Madrid),
Sarah Post (University of Hawaii at Manoa),
Margit Rösler (Paderborn University),
Jan Felipe van Diejen (Universidad de Talca),
Luc Vinet (Université de Montréal).

From: Erik Koelink (e.koelink@math.ru.nl) and Walter Van Assche (walter.vanassche@kuleuven.be)
Subject: OPSF-S9: Summer school at Radboud University (The Netherlands)

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OPSFA Summer School (OPSF-S9)
Radboud University (The Netherlands)
August 8-12, 2022

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The 2022 summer school is part of a series of OPSFA-summer schools. The topics for the 2022 summer school consist of the relation of OPSFA to modular forms, numerical analysis, harmonic analysis as well as the new developments in matrix orthogonal polynomials, and the application to quantum information and quantum computing. You will study the role of orthogonal polynomials and special functions in the above mentioned topics under the supervision of five leading experts in their fields. During the summer school you will have ample time to interact with the lecturers, the organisers and some visitors, who are all active and leading researchers in the field. Apart from lectures you will take part in tutorials and you will have the opportunity to present your own research in OPSFA. Moreover, you will interact with other participants, ranging from master students and PhD-students to post-docs. This will give you the opportunity to discuss mathematics and to participate in modern day research in OPSFA.

The course is aimed at PhD-students working in the fields where orthogonal polynomials and special functions are used and applied, or in the field of orthogonal polynomials and special functions itself. Postdocs in these fields, or postdocs wanting to make themselves acquainted with recent developments in these fields, can also participate. Advanced master students with an interest in these topics, or aspiring for a PhD-track, can participate as well. You can participate in the summer school when you have a sound background in mathematics, especially complex analysis, analysis, differential equations, group theory, representation theory, numerical analysis, linear algebra, as covered in a standard mathematics programme. Knowledge of the basic theory of orthogonal polynomials is helpful.

Preliminary course programme:

- Hypergeometric functions of several variables and harmonic analysis
  Lecturer: Margit Rösler, Universität Paderborn, Germany

- Orthogonal polynomials and quantum information/computing
  Lecturer: Luc Vinet, Université de Montréal, Canada

- Matrix valued orthogonal polynomials
  Lecturer: Pablo Román, Universidad Nacional de Córdoba, Argentina

- Numerical analysis: quadratures and Krylov spaces
  Lecturer: Daan Huybrechs, KU Leuven, Belgium

- Number theory and special functions: modular functions
  Lecturer: Wadim Zudilin, Radboud Universiteit, The Netherlands

The course leaders are Erik Koelink (Radboud University, The Netherlands) and Walter Van Assche (KU Leuven, Belgium).

Link: https://www.ru.nl/radboudsummerschool/courses/2022/opsfa-summer-school/

From: Andrei Martínez–Finkelshtein (andrei@ual.es) and Fritz Gesztesy (Fritz_Gesztesy@baylor.edu)
Subject: Baylor Analysis Fest: Celebrating **Lance L. Littlejohn**'s Accomplishments

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Baylor Analysis Fest:
From Operator Theory to Orthogonal Polynomials, Combinatorics, and Number Theory
Baylor University, Waco, TX
May 23–27, 2022

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The conference is organized around topics of Analysis such as Operator and Spectral Theory, Special Functions and Orthogonal Polynomials, and their connections with Combinatorics, Probability Theory, and Number Theory.

We will also celebrate Lance L. Littlejohn's accomplishments in building the mathematics department at Baylor University for well over a decade now.

Plenary Speakers:

- George E. Andrews (Pennsylvania State University)
- David Damanik (Rice University)
- Lance L. Littlejohn (Baylor University)
- Ken Ono (University of Virginia)
- Barry Simon (California Institute of Technology)

Titles and abstracts: TBA

Local Organizing Committee:

- Fritz Gesztesy
- Andrei Martínez–Finkelshtein

Venue: **We plan for a hybrid meeting, or, if absolutely necessary, for an online meeting, depending on COVID restrictions.**

The Department of Mathematics is located on the third floor of the Sid Richardson Science Building (Paul L. Foster Success Center). On the Campus Map, the Sid Richardson Science Building is the horseshoe–shaped building just to the left of Waco Creek in the heart of the campus. See the map link on the conference website that identifies the Sid Richardson Building.

Baylor University lies in Waco, Texas on Interstate I–35 between Dallas/Fort Worth and Austin, Texas.

Link: https://tinyurl.com/BAFconference

José Carlos Petronilho

Three remembrances of
José Carlos Soares Petronilho
(May 27, 1965—August 27, 2021)

by Álvarez-Nodarse, Marcellán, da Fonseca and Costas-Santos

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Renato Álvarez-Nodarse, Universidad de Sevilla, Spain,
Paco Marcellán, Universidad Carlos III de Madrid, Spain.

In August 28 we were shocked with the announcement that our colleague José Carlos Petronilho passed away on Friday August 27 as a consequence of a ischemic stroke he had on Sunday August 22 during a walk with his wife Celia. We are writing this obituary under the impact of this sad news.

José (Zé) Carlos Soares Petronilho was born on May 27, 1965 in Mira, a little town near Coimbra, Portugal. After obtaining his Bachelors degree in Mathematics at Coimbra University (1989) he started the Master studies and defended a Master's Thesis in 1994 with Prof. Francisco Marcellán as his advisor. In 1997 he defended his doctoral dissertation "Orthogonal Polynomials and Polynomial mappings: Inverse problems" under the supervision of Prof. Jaime Carvalho e Silva and Prof. Francisco Marcellán.

Next, Zé Carlos was appointed as Assistant Professor in the Department of Mathematics at Universidade de Coimbra. In 2005 he became Associate Professor in the same Department. In April 2018 Zé Carlos obtained the "Agregação" degree, an administrative condition required to become a Full Professor in the Portuguese academic system.

According to MathSciNet, Zé Carlos coauthored 39 papers, covering Special Functions, Orthogonal Polynomials, Linear Algebra and Applications. As a consequence of a very good background in Functional Analysis, his work in orthogonal polynomials was focused on linear functionals following the ideas of P. Maroni and the analysis of the classical case for different lowering operators and lattices. The study of sieved polynomials was one of his main scientific topics. From the pioneering works by M. E. H. Ismail and J. Charris, Zé Carlos was very proud of his contributions on orthogonal polynomials on the real line and the unit circle, respectively, associated with polynomial mappings. We also point out his contributions to inverse problems in the theory of orthogonal polynomials (for instance, linearly related sequences of derivatives of orthogonal polynomials), spectral problems for tridiagonal k–Toeplitz matrices and their connection with polynomial mappings, and inversion of tridiagonal matrices, among others.

As a careful and rigorous mathematician, Zé Carlos wrote lecture notes for his courses which were very much appreciated by the students. In particular, we can emphasize those related to the course on "Orthogonal Polynomials and Special Functions" in the framework of the joint PhD program of University of Coimbra and University of Porto.

Zé Carlos was involved in many activities both in Centro de Matemática, Universidade de Coimbra, and in the Department of Mathematics. Among others, he was the coordinator of the implementation of the Bachelor's Degree in Mathematics in the framework of the Bologna process and as well a member of the management team of the Department. During his last years, he also acted as the coordinator of such a degree in the Faculty of Mathematics at Coimbra University.

Zé Carlos supervised two doctoral dissertations. One by M. de Jesús and another by D. Mbouna (this last one was defended in March 2021). He was a perfect supervisor for his students, and as well, an excellent collaborator with people sharing his same scientific interests.

In these moments we have in our mind his wife Celia and daughters Sara and Ines. We shared with them very nice times with occasion of our visits to Coimbra. Zé Carlos was an excellent host and we were very happy when visiting his house for a gastronomic activity complementary of the intensive work in his office.

He was a very honest person, a hard worker and a beloved father. The OPSF community has lost an excellent mathematician and as well a very good friend. We will all surely miss him.

<center>⋆ ⋆ ⋆</center>

Carlos M. da Fonseca, Kuwait College of Science and Technology, Kuwait.

José Carlos and I were office mates and close friends during the early years of our university careers. During this period, we developed several joint works and I could admire his knowledge and enthusiasm for orthogonal polynomials. His affability was admired by everyone.

José Carlos was an important promoter in Portugal of the study of orthogonal polynomials.

The sudden death of José Carlos saddens us all.

<center>⋆ ⋆ ⋆</center>

Roberto S. Costas-Santos, Universidad de Alcalá, Spain.

I met José Carlos in Coimbra in 2003 during a short visit where some friends gave a talk, probably in the 'cantina' where we used to have the meals and drink coffee. The first impression I had was that he was a quiet and shy person. Along the years I had the chance to talk with him about different ideas related to orthogonal polynomials, and I had the honor to have him as part of my PhD defense tribunal in 2007.

I never had the chance to write a paper with him but I have read most of his work and I can say that his scientific contributions are so deep that it is logical to believe he has almost a thousand citations in Google Scholar.

Despite not having frequent contact with him, I am saddened by his sudden death being so young because I am convinced that anyone who knew him would say that he was a very special person both personally and professionally.

Topic #5 ⸻ OP – SF Net 28.5 ⸻ September 15, 2021

From: OP-SF Net Editors
Subject: Preprints in arXiv.org

The following preprints related to the fields of orthogonal polynomials and special functions were posted or cross-listed to one of the subcategories of arXiv.org during July and August 2021. This list has been separated into two categories.

OP-SF Net Subscriber E-Prints

http://arxiv.org/abs/2107.00255
Moments of Orthogonal Polynomials and Exponential Generating Functions
Ira M. Gessel, Jiang Zeng

http://arxiv.org/abs/2107.00770
Hypergeometric Multiple Orthogonal Polynomials and Random Walks
Amílcar Branquinho, Juan E. Fernández-Díaz, Ana Foulquié-Moreno, Manuel Mañas

http://arxiv.org/abs/2107.00905
Ratios of Entire functions and generalized Stieltjes functions
Dimitris Askitis, Henrik L. Pedersen

http://arxiv.org/abs/2107.00943
Discrete orthogonal polynomials associated with Macdonald function
Semyon Yakubovich

http://arxiv.org/abs/2107.01747
Pearson Equations for Discrete Orthogonal Polynomials: I. Generalized Hypergeometric Functions and Toda Equations
Manuel Mañas, Itsaso Fernández-Irisarri, Omar F. González-Hernández

http://arxiv.org/abs/2107.02177
Pearson Equations for Discrete Orthogonal Polynomials: II. Generalized Charlier, Meixner and Hahn of type I cases
Itsaso Fernández-Irisarri, Manuel Mañas

http://arxiv.org/abs/2107.02571
A note on degenerate generalized Laguerre polynomials and Lah numbers
Taekyun Kim, Dmitry V. Dolgy, Dae san Kim, Hye Kyung Kim, Seong Ho Park

http://arxiv.org/abs/2107.02607
Extended higher Herglotz functions I. Functional equations
Atul Dixit, Rajat Gupta, Rahul Kumar

http://arxiv.org/abs/2107.02800
The numerical evaluation of the Riesz function
R. B. Paris

http://arxiv.org/abs/2107.02918
Pearson Equations for Discrete Orthogonal Polynomials: III. Christoffel and Geronimus transformations
Manuel Mañas

http://arxiv.org/abs/2107.03627
Finite series representation for the bound states of a spiked isotropic oscillator with inverse-quartic singularity
A. D. Alhaidari

http://arxiv.org/abs/2107.03785
Holomorphic family of Dirac-Coulomb Hamiltonians in arbitrary dimension
Jan Dereziński, Błażej Ruba

http://arxiv.org/abs/2107.04416
Elliptic functions in signature four
P. L. Robinson

http://arxiv.org/abs/2107.04758
On multipoint Padé approximants whose poles accumulate on contours that separate the plane
M. L. Yattselev

http://arxiv.org/abs/2107.04935
Fourth Painlevé Equation and PT-Symmetric Hamiltonians
Carl M. Bender, J. Komijani

http://arxiv.org/abs/2107.06030
Jonathan Michael Borwein 1951-2016: Life and Legacy
Richard P. Brent

http://arxiv.org/abs/2107.06133
Discrete index transforms with Bessel and modified Bessel functions
Semyon Yakubovich

http://arxiv.org/abs/2107.06225
On string functions and double-sum formulas
Eric T. Mortenson, Olga Postnova, Dmitry Solovyev

http://arxiv.org/abs/2107.06457
Variations and Extensions of Ramanujan's Identity
Christophe Vignat, Sarth Chavan, Parth Chavan

http://arxiv.org/abs/2107.08548
Ghosts and congruences for p^s-appoximations of hypergeometric periods
Alexander Varchenko, Wadim Zudilin

http://arxiv.org/abs/2107.09271
On domain properties of Bessel-type operators
Fritz Gesztesy, Michael M. H. Pang, Jonathan Stanfill

http://arxiv.org/abs/2107.09824
Complex Jacobi matrices generated by Darboux transformations
Rachel Bailey, Maxim Derevyagin

http://arxiv.org/abs/2107.10214
Spectral analysis of quantum Markov chains on the line and their statistics
Manuel D. de la Iglesia, Carlos F. Lardizabal, Newton Loebens

http://arxiv.org/abs/2107.10694
The Hilbert L-matrix
František Štampach

http://arxiv.org/abs/2107.11154
Orthogonal polynomials with periodically modulated recurrence coefficients in the Jordan block case II
Grzegorz Świderski, Bartosz Trojan

http://arxiv.org/abs/2107.11380
Instability of the Body-Centered Cubic Lattice within the Sticky Hard Sphere and Lennard-Jones Model obtained from Exact Lattice Summations
Antony Burrows, Shaun Cooper, Peter Schwerdtfeger

http://arxiv.org/abs/2107.11430
Para-orthogonal polynomials on the unit circle generated by Kronecker polynomials
Alexei Zhedanov

http://arxiv.org/abs/2107.11515
Monotone subsets in lattices and the Schensted shape of a Sós permutation
Karl Liechty, T. Kyle Petersen

http://arxiv.org/abs/2107.12543
Ramanujan's trigonometric sums and para-orthogonal polynomials on the unit circle
Alexei Zhedanov

http://arxiv.org/abs/2107.12559
Determining the Indeterminate: On the Evaluation of Integrals that connect Riemann's, Hurwitz' and Dirichlet's Zeta, Eta and Beta functions
Michael Milgram

http://arxiv.org/abs/2107.12998
Abelianization of Matrix Orthogonal Polynomials
Marco Bertola

http://arxiv.org/abs/2107.13092
On Invariance Properties of Entries of Matrix Powers
Shalosh B. Ekhad, Doron Zeilberger

http://arxiv.org/abs/2108.00247
Fourier orthogonal series on a paraboloid
Yuan Xu

http://arxiv.org/abs/2108.00499
Eigenfunctions of a discrete elliptic integrable particle model with hyperoctahedral symmetry
Jan Felipe van Diejen, Tamás Görbe

http://arxiv.org/abs/2108.00534
On the solution of a Riesz equilibrium problem and integral identities for special functions
Djalil Chafaï, Edward B. Saff, Robert S. Womersley

http://arxiv.org/abs/2108.00549
Multidimensional Padé approximation of binomial functions: Equalities
Michael A. Bennett, Greg Martin, Kevin O'Bryant

http://arxiv.org/abs/2108.00810
Koshliakov zeta functions I: Modular Relations
Atul Dixit, Rajat Gupta

http://arxiv.org/abs/2108.01447
On the ν-zeros of the modified Bessel function $K_{i\nu}(x)$ of positive argument
R. B. Paris

http://arxiv.org/abs/2108.01629
An approach to universality using Weyl m-functions
Benjamin Eichinger, Milivoje Lukić, Brian Simanek

http://arxiv.org/abs/2108.02918
Automatic Generation of Convolution Identities for C-finite sequences
Shalosh B. Ekhad, Doron Zeilberger

http://arxiv.org/abs/2108.03200
Cycles of even-odd drop permutations and continued fractions of Genocchi numbers
Qiongqiong Pan, Jiang Zeng

http://arxiv.org/abs/2108.03228
Elementary symmetric polynomials and martingales for Heckman-Opdam processes
Margit Rösler, Michael Voit

http://arxiv.org/abs/2108.03275
Utility of integral representations for basic hypergeometric functions and orthogonal polynomials
Howard S. Cohl, Roberto S. Costas-Santos

http://arxiv.org/abs/2108.03276
On the relation between Gegenbauer polynomials and the Ferrers function of the first kind
Howard S. Cohl, Roberto S. Costas-Santos

http://arxiv.org/abs/2108.03595
Ratios of the Gauss hypergeometric functions with parameters shifted by integers: more on integral representations
Alexander Dyachenko, Dmitrii Karp

http://arxiv.org/abs/2108.03858
Charting the q-Askey scheme
Tom H. Koornwinder

http://arxiv.org/abs/2108.04323
Isomorphisms between random graphs
Sourav Chatterjee, Persi Diaconis

http://arxiv.org/abs/2108.04339
Fractional operators and multi-integral representations for associated Legendre functions
Loyal Durand

http://arxiv.org/abs/2108.04379
A sharp form of the discrete Hardy inequality and the Keller-Pinchover-Pogorzelski inequality
David Krejcirik, Frantisek Stampach

http://arxiv.org/abs/2107.04892
A multi-orthogonal polynomials' approach to bulk queueing theory
Ulises Fidalgo

http://arxiv.org/abs/2108.05049
Representing polynomials by degenerate Bernoulli polynomials
Dae san Kim, Taekyun Kim

http://arxiv.org/abs/2108.06018
Deformed Polynuclear Growth in $(1+1)$ Dimensions
Amol Aggarwal, Alexei Borodin, Michael Wheeler

http://arxiv.org/abs/2108.06433
Modular forms, projective structures, and the four squares theorem
Michael Eastwood, Ben Moore

http://arxiv.org/abs/2108.06586
The birthday boy problem
Wadim Zudilin

http://arxiv.org/abs/2108.07214
Complexity-like properties and parameter asymptotics of $\mathcal{L}_q$-norms of Laguerre and Gegenbauer polynomials
Jesús S. Dehesa, Nahual Sobrino

http://arxiv.org/abs/2108.07264
A model problem for multiplicative chaos in number theory
Kannan Soundararajan, Asif Zaman

http://arxiv.org/abs/2108.09386
Analytic "Newton's cradles" with perfect transfer and fractional revival
Hugo Schérer, Luc Vinet, Alexei Zhedanov

http://arxiv.org/abs/2108.09414
Combinatorial Perspectives on the Crank and Mex Partition Statistics
Brian Hopkins, James A. Sellers, Ae Ja Yee

http://arxiv.org/abs/2108.09421
Mellin–Barnes and the method of brackets
Ivan Gonzalez, Igor Kondrashuk, Victor H. Moll, Luis M. Recabarren

http://arxiv.org/abs/2108.09560
Distribution of values of Gaussian hypergeometric functions
Ken Ono, Hasan Saad, Neelam Saikia

http://arxiv.org/abs/2108.09687
Random polynomials and their zeros
Christopher Corley, Andrew Ledoan, Aaron Yeager

http://arxiv.org/abs/2108.10756
Derivation of Computational Formulas for certain class of finite sums: Approach to Generating functions arising from p-adic integrals and special functions
Yilmaz Simsek

http://arxiv.org/abs/2108.10857
Higher-order heat equation and the Gelfand–Dickey hierarchy
Plamen Iliev

http://arxiv.org/abs/2108.11210
Complete asymptotic expansions for the relativistic Fermi–Dirac integral
A. Gil, J. Segura, N. M. Temme

http://arxiv.org/abs/2108.11285
Automatic Counting of Generalized Latin Rectangles and Trapezoids
George Spahn, Doron Zeilberger

http://arxiv.org/abs/2108.12679
Congruences for Hasse–Witt matrices and solutions of p-adic KZ equations
Alexander Varchenko, Wadim Zudilin

http://arxiv.org/abs/2108.12708
Using Catalan words and a q-shuffle algebra to describe the Beck PBW basis for the positive part of $U_q(\widehat{\mathfrak{sl}}_2)$
Paul Terwilliger

http://arxiv.org/abs/2108.12796
q-Analogues of π-Related Formulae from Jackson's ${}_8\varphi_7$-Series via Inversion Approach
Xiaojing Chen, Wenchang Chu

http://arxiv.org/abs/2108.12979
Infinite families of crank functions, Stanton-type conjectures, and unimodality
Kathrin Bringmann, Kevin Gomez, Larry Rolen, Zack Tripp

http://arxiv.org/abs/2108.13533
A family of fourth-order superintegable systems with rational potentials related to Painlevé VI
I. Marquette, S. Post, L. Ritter

http://arxiv.org/abs/2108.13819
The Terwilliger algebra of symplectic dual polar graphs, the subspace lattices and $U_q(sl_2)$
Pierre-Antoine Bernard, Nicolas Crampe, Luc Vinet

http://arxiv.org/abs/2108.13991
A Class of Identities Associated with Dirichlet Series Satisfying Hecke's Functional Equation
Bruce C. Berndt, Atul Dixit, Rajat Gupta, Alexandru Zaharescu

Other Relevant OP-SF E-Prints

http://arxiv.org/abs/2107.00405
On the Fourier coefficients of powers of a Blaschke factor and strongly annular fonctions
Alexander Borichev, Karine Fouchet, Rachid Zarouf

http://arxiv.org/abs/2107.00697
On a criterion for the determinate-indeterminate dichotomy of the moment problem
Diego Hernández Bustos, Sergio Palafox, Luis O. Silva

http://arxiv.org/abs/2107.00951
Qualitative uncertainty principles for the windowed Opdam-Cherednik transform on weighted modulation spaces
Shyam Swarup Mondal, Anirudha Poria

http://arxiv.org/abs/2107.01156
Spectral transition for Dirac operators with electrostatic δ-shell potentials supported on the straight line
Jussi Behrndt, Markus Holzmann, Matěj Tušek

http://arxiv.org/abs/2107.01364
A Class of Simple Rearrangements of the Alternating Harmonic Series
Maxim Gilula

http://arxiv.org/abs/2107.02092
On the symmetric and skew-symmetric K-distributions
Stylianos E. Trevlakis, Nestor D. Chatzidiamantis, George K. Karagiannidis

http://arxiv.org/abs/2107.02171
Simulation of Reflected Brownian motion on two dimensional wedges
Pierre Bras, Arturo Kohatsu-Higa

http://arxiv.org/abs/2107.02303
Generalized Gibbs ensemble of the Ablowitz-Ladik lattice, Circular β-ensemble and double confluent Heun equation
Guido Mazzuca, Tamara Grava

http://arxiv.org/abs/2107.02475
First-order nonlinear eigenvalue problems and random walk in one dimension
Javad Komijani

http://arxiv.org/abs/2107.03191
An extension to the complex plane of the Riemann-Siegel Z function
Giovanni Lodone

http://arxiv.org/abs/2107.03269
Order of Zeros of Dedekind Zeta Functions
Daniel Hu, Ikuya Kaneko, Spencer Martin, Carl Schildkraut

http://arxiv.org/abs/2107.03363
Critical point asymptotics for Gaussian random waves with densities of any Sobolev regularity
Alberto Enciso, Daniel Peralta-Salas, Álvaro Romaniega

http://arxiv.org/abs/2107.03556
Some Remarks on Small Values of $\tau(n)$
Kaya Lakein, Anne Larsen

http://arxiv.org/abs/2107.03590
CTM/Zeta Correspondence
Takashi Komatsu, Norio Konno, Iwao Sato

http://arxiv.org/abs/2107.04148
Fractional powers approach of operators for higher order abstract Cauchy problems
Flank D. M. Bezerra, Lucas A. Santos

http://arxiv.org/abs/2107.04637
Moments of quantum purity and biorthogonal polynomial recurrence
Shi-Hao Li, Lu Wei

http://arxiv.org/abs/2107.04733
ℓ-adic hypergeometric function
Hidekazu Furusho

http://arxiv.org/abs/2107.04809
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Topic #6 ——— OP – SF Net 28.5 ——— September 15, 2021

From: OP–SF Net Editors
Subject: Submitting contributions to OP–SF NET and SIAM–OPSF (OP–SF Talk)

To contribute a news item to OP–SF NET, send e–mail to one of the OP–SF Editors
howard.cohl@nist.gov, or spost@hawaii.edu.

Contributions to OP–SF NET 28.6 should be sent by November 1, 2021.

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The appointed officers are:
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Topic #7 ——— OP – SF Net 28.5 ——— September 15, 2021

From: OP-SF Net Editors
Subject: Thought of the Month by **Barry Simon**

"Given this work on the theory on a Banach space, it is interesting to see a quote that his friend Cordes attributes to Kato: "There is no decent Banach space, except Hilbert space." It is likely Kato had in mind the spectral theorem and the theory of quadratic forms of operators, a subject where he made important contributions, especially the monotone convergence theorems for forms."

Barry Simon, *Tosio Kato's Work on Non-Relativistic Quantum Mechanics: A Brief Report*, International Association of Mathematical Physics (IAMP) News Bulletin, January 2018.

Contributed by Fritz Gesztesy