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Editors:
Howard S. Cohl howard.cohl@nist.gov
Sarah Post spost@hawaii.edu

Topics:

Calendar of Events:

November 30-December 2, 2017
International Conference Approximation and Computation – Theory and Applications
(Dedicated to Professor Walter Gautschi on the Occasion of his 90th Anniversary)
Belgrade, Serbia
http://easychair.org/smart-program/ACTA2017/Home.html

January 10-13, 2018
2018 Joint Mathematics Meetings, American Mathematical Society,
San Diego Convention Center and San Diego Marriott Hotel and Marina, San Diego, CA, USA
http://jointmathematicsmeetings.org/meetings/national/jmm2018/2197_intro

AMS Special Session on Orthogonal Polynomials and Applications,
Organized by Abey Lopez-Garcia and Xiang-Sheng Wang

AMS Special Session on Orthogonal Polynomials, Quantum Probability, and Stochastic Analysis,
Organized by Julius N. Esunge and Aurel I. Stan

AMS Special Session on Special Functions and Combinatorics
(in honor of Dennis Stanton's 65th birthday),
Organized by Susanna Fishel, Mourad Ismail, and Vic Reiner

AMS Special Session on Algebraic, Analytic, and Geometric Aspects of Integrable Systems,

Painlevé Equations, and Random Matrices,
Organized by Vladimir Dragovic, Anton Dzhamay, and Sevak Mkrtchyan

AMS Special Session on Mathematical Information in the Digital Age of Science,
Organized by Patrick Ion, Olaf Teschke, and Stephen Watt

January 29–February 2, 2018
Winter School: "Partition Functions and Automorphic Forms"
Bogoliubov Laboratory of Theoretical Physics, JINR, Dubna, Russia
http://indico.jinr.ru/event/diastp/Winter2018

November 2–15, 2018
Complex Differential and Difference Equations
Banach Center, Będlewo, Poland
https://www.impan.pl/en/activities/banach-center/conferences/18-cdde

November 11–17, 2018
Symmetries and Integrability of Difference Equations (SIDE13:2018)
Fukuoka, Japan
http://side-conferences.net

Summer, 2019
International Symposium on Orthogonal Polynomials, Special Functions & Applications (OPSFA-15)
RISC, Johannes Kepler University, Linz, Austria

Topic #1 ——— OP - SF Net 24.6 ——— November 15, 2017

From: Walter Van Assche (walter.vanassche@kuleuven.be)
Subject: Barry Simon Wins 2018 Dannie Heineman Prize for Mathematical Physics

The American Institute of Physics (AIP) and the American Physical Society (APS) award the Dannie Heineman Prize for Mathematical Physics to the mathematical and theoretical physicist Barry Simon for his seminal contributions to the field in a broad spectrum of topics.

The AIP and APS announced that Barry Simon of Caltech is the recipient of the 2018 Dannie Heineman Prize for Mathematical Physics, which is awarded annually to honor significant contributions to the field.

In recognizing Simon, the two organizations cited him "For his fundamental contributions to the mathematical physics of quantum mechanics, quantum field theory, and statistical mechanics, including spectral theory, phase transitions, and geometric phases, and his many books and monographs that have deeply influenced generations of researchers."

"Dr. Simon has impacted so many fundamental aspects of physics over multiple decades with his mathematical insights. His multiple text books, including the classic "Methods of Modern Mathematical Physics," which he co-authored with M. Reed, continue to help students develop fundamental skills in modeling physical systems," said Catherine O'Riordan, interim co-CEO and COO at AIP. "We offer sincere congratulations to Dr. Simon who is joining eight of his co-authors and collaborators who have previously won the Heineman award."

Topic #2 ——— OP - SF Net 24.6 ——— November 15, 2017

From: Hamza Chaggara (hmmzcgg@gmail.com)
Subject: OPSF-S8 in Sousse, Tunisia

The next OPSF summer school (OPSF-S8) will be organized in Tunisia, from Monday June 25 to Friday June 29, 2018.

The program of the summer school consists of five lecture courses by Youssef ben Cheikh, Walter Van Assche, Erik Koelink, Wolfram Koepf and Jiang Zeng. There is also one guest lecture by Mama Foupouagnigni. Every lecture course consists of five sessions of approx. one hour. One or more special sessions (exercises, open problems) can also be scheduled.

The courses will be given at the Higher School of Sciences and Technology of Sousse University in Amphi Mohamed Salah Belkheria. A bus will be organized between the hotel and the school.

More information will be available later, including a website.

Topic #3 ——— OP - SF Net 24.6 ——— November 15, 2017

From: Zuhair Nashed (M.Nashed@ucf.edu) and Xin Li (Xin.Li@ucf.edu)
Subject: Frontiers in Orthogonal Polynomials and q-Series

Frontiers in Orthogonal Polynomials and q-Series

Edited by: M. Zuhair Nashed (University of Central Florida, USA),
Xin Li (University of Central Florida, USA)

This volume aims to highlight trends and important directions of research in orthogonal polynomials, q-series, and related topics in number theory, combinatorics, approximation theory, mathematical physics, and computational and applied harmonic analysis. This collection is based on the invited lectures by well-known contributors from the *International Conference on Orthogonal Polynomials and q-Series*, that was held at the University of Central Florida in Orlando, on May 10-12, 2015. The conference was dedicated to Professor Mourad Ismail on his 70^{th} birthday.

The editors strived for a volume that would inspire young researchers and provide a wealth of information in an engaging format. Theoretical, combinatorial and computational/algorithmic aspects are considered, and each chapter contains many references on its topic, when appropriate.

Contents

5. "Solvability of the Hankel Determinant Problem for Real Sequences," **Andrew Bakan and Christian Berg**
6. "Convolution and Product Theorems for the Special Affine Fourier Transform," **Ayush Bhandari and Ahmed I. Zayed**
7. "A Further Look at Time-and-Band Limiting for Matrix Orthogonal Polynomials," **M. Castro, F. A. Grünbaum, I. Pacharoni and I. Zurrián**
8. "The Orthogonality of Al-Salam-Carlitz Polynomials for Complex Parameters," **Howard S. Cohl, Roberto S. Costas-Santos and Wenqing Xu**
9. "Crouching AGM, Hidden Modularity," **Shaun Cooper, Jesús Guillera, Armin Straub and Wadim Zudilin**
10. "Asymptotics of Orthogonal Polynomials and the Painlevé Transcendents," **Dan Dai**
11. "From the Gaussian Circle Problem to Multivariate Shannon Sampling," **Willi Freeden and M. Zuhair Nashed**
12. "Weighted Partition Identities and Divisor Sums," **F. G. Garvan**
13. "On the Ismail-Letessier-Askey Monotonicity Conjecture for Zeros of Ultraspherical Polynomials," **Walter Gautschi**
14. "A Discrete Top-Down Markov Problem in Approximation Theory," **Walter Gautschi**
15. "Supersymmetry of the Quantum Rotor," **Vincent X. Genest, Luc Vinet, Guo-Fu Yu, and Alexei Zhedanov**
16. "The Method of Brackets in Experimental Mathematics," **Ivan Gonzalez, Karen Kohl, Lin Jiu and Victor H. Moll**
17. "Balanced Modular Parameterizations," **Tim Huber, Danny Lara and Esteban Melendez**
18. "Some Smallest Parts Functions from Variations of Bailey's Lemma," **Chris Jennings-Shaffer**
19. "Dual Addition Formulas Associated with Dual Product Formulas," **Tom H. Koornwinder**
20. "Holonomic Tools for Basic Hypergeometric Functions," **Christoph Koutschan and Peter Paule**
21. "A Direct Evaluation of an Integral of Ismail and Valent," **Alexey Kuznetsov**
22. "Algebraic Generating Functions for Gegenbauer Polynomials," **Robert S. Maier**
23. "q-Analogues of Two Product Formulas of Hypergeometric Functions by Bailey," **Michael J. Schlosser**
24. "Summation Formulas for Noncommutative Hypergeometric Series," **Michael J. Schlosser**
25. "Asymptotics of Generalized Hypergeometric Functions," **Y. Lin and R. Wong**
26. "Mock Theta-Functions of the Third Order of Ramanujan in Terms of Appell-Lerch Series," **Changgui Zhang**
27. "Certain Positive Semidefinite Matrices of Special Functions," **Ruiming Zhang**

From: Tom H. Koornwinder (T.H.Koornwinder@uva.nl)
Subject: Report on ICSFA-2017 in Bikaner, Rajasthan, India

Report on the International Conference on Special Functions and Applications: ICSFA-2017, Bikaner, Rajesthan, India, November 2-4, 2017.

Figure 1: From right to left S. N. Singh, T. K. Pogany, M. A. Pathan, N. K. Thakare, S. A. Ali, T. H. Koornwinder.

This was the 16th annual conference of the (Indian) Society for Special Functions & their Applications (SSFA). I attended this conference on the invitation to deliver there the R. P. Agarwal Memorial Lecture, in memory of Professor R. P. Agarwal (1925-2008). The tradition of this annual lecture started in 2011, where the lecture was delivered by George Andrews. I have met Prof. Agarwal personally in January 1997 at the workshop "Special functions and differential equations," Institute of Mathematical Sciences, Chennai, India.

Figure 2: Some conference participants after the visit to the Karni Mata Temple.

Bikaner is a seven hour train ride to the west from New Delhi. The city was founded in 1488. It was a staging post on the great caravan trade routes. For centuries it was a kind of independent princely state, in good relationship with the Mughals. The top sight is a gigantic fort, Junagarh, where the rulers of Bikaner were living. When the rulers were finally kicked out of the fort by the English, they built a new palace, the Lalgarh Palace, which is now a hotel, and it was the venue of this conference.

The conference opened with a long ceremony, called Inaugural Function, in which I had the honor to participate as Chief Guest. Candles were lighted, there were many speeches, there was a felicitation ceremony of Prof. N. K. Thakare, and at the end, the Indian national anthem was sung.

The mathematical part of the conference started with the Presidential Address by Prof. A. K. Agarwal (no relation to the late R. P. Agarwal) on "Combinatorics of mock theta functions." This lecture was already available as a booklet in the conference documents. These documents also included a very nice conference book (called Souvenir), starting with Messages by Important Persons, and followed by Brief Profiles, and by a history of the SSFA. The second part contained the abstracts of the lectures. My lecture, in memory of Professor R. P. Agarwal, had the title "Bispectrality and dual addition formulas" (see the

slides on my home page).

The further lectures in the conference were on the one hand, invited lectures of thirty minutes, and on the other hand, numerous ten minutes lectures in two parallel sessions by PhD students. In general, the invited lectures were interesting. In particular I liked:

- "Advanced special functions associated with Lie and Witt algebras," by M. A. Pathan;
- "Y-Bessel sampling series of L^2 stochastic processes," by Tibor K. Pogany (Croatia and Hungary; one of the few foreign participants); and
- "Lie-algebraic approach to 1-parameter 2D-Hermite polynomials," by Subuhi Khan.

After each invited lecture, the chair was asked to hand a trophy to the speaker. The short lectures by the students rushed through many densely written slides, not quite effective for absorbing anything. Still, a student I spoke later to about this said that this was the habit, and that he had no problems with it.

The conference ended with another ceremony, a so-called Valedictory Function. This included an evaluation of the conference by a few persons. One good suggestion was to spend part of the next conference on a special theme. My own impression was a kind of wonder that the topics presented at this conference were almost disjoint from what is presented at an OPSFA meeting. In particular, there were no general orthogonal polynomials, and hardly any special OP's.

Good Indian meals were provided to the participants during the whole conference. One evening dinner was on an outside field close to the hotel, with live music and female dancers. During another evening, we made an excursion by bus, first to a horse breeding farm, and next to the Karni Mata Temple (The Rat Temple of Rajasthan), which houses thousands of rats! (Un)fortunately, a religious festival was going on, by which access to the temple was very crowded, almost chaotic, so that none of us could afford the waiting time needed to enter the part of the temple where you can have physical contact with the rats.

Dr. Rakesh Kumar Parmar, and his team from the Govt. College of Engineering & Technology in Bikaner, did a good job in the organisation of this conference. We also made a brief visit to this College, which is quite new and far outside the city. Before and after the conference, I spent a day in New Delhi where I was accompanied and guided in a very pleasant way by some younger mathematicians of Jamia Millia Islamia University. Profs. M. A. Pathan and S. A. Ali also offered nice company during the whole trip.

The SSFA (http://www.ssfaindia.webs.com/index.htm) would like to intensify its contacts with the SIAG/OPSF activity group; and that this intensification of contacts might be done through the Newsletters, conferences and (summer) schools. I recommend this to the attention of its officers and editors.

Topic #5 ——— OP - SF Net 24.6 ——— November 15, 2017

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 September and October 2017. This list has been separated into two categories.

OP-SF Net Subscriber E-Prints

http://arxiv.org/abs/1709.00022
An extension of the Kanemitsu-Tanigawa-Yoshimoto theorem on a generalized Lambert series and its implications
Atul Dixit, Bibekananda Maji

http://arxiv.org/abs/1709.00651
Optimal Points for Cubature Rules and Polynomial Interpolation on a Square
Yuan Xu

http://arxiv.org/abs/1709.01248
1324-avoiding permutations revisited
Andrew R. Conway, Anthony J. Guttmann, Paul Zinn-Justin

http://arxiv.org/abs/1709.02616
A Curious Family of Binomial Determinants That Count Rhombus Tilings of a Holey Hexagon
Christoph Koutschan, Thotsaporn Thanatipanonda

http://arxiv.org/abs/1709.03213
Some Identities associated with mock theta functions $\omega(q)$ and $\nu(q)$
George E. Andrews, Ae Ja Yee

http://arxiv.org/abs/1709.07389
On Andrews-Warnaar's identities of partial theta functions
Jin Wang, Xinrong Ma

http://arxiv.org/abs/1709.05997
Orthogonal stochastic duality functions from Lie algebra representations
Wolter Groenevelt

http://arxiv.org/abs/1709.06081
Open problem in orthogonal polynomials
A. D. Alhaidari

http://arxiv.org/abs/1709.06189
Solutions modulo p of Gauss-Manin differential equations for multidimensional hypergeometric integrals and associated Bethe ansatz
Alexander Varchenko

http://arxiv.org/abs/1709.06707
Asymptotics of Chebyshev Polynomials, II. DCT Subsets of $\mathbb{R}$
Jacob S. Christiansen, Barry Simon, Peter Yuditskii, Maxim Zinchenko

http://arxiv.org/abs/1709.07141
The k-tacnode process
Robert Buckingham, Karl Liechty

http://arxiv.org/abs/1709.07226
Double affine Hecke algebra of rank 1 and orthogonal polynomials on the unit circle
Satoshi Tsujimoto, Luc Vinet, Alexei Zhedanov

http://arxiv.org/abs/1709.07652
Quantum mechanics with orthogonal polynomials
A. D. Alhaidari

http://arxiv.org/abs/1709.07825
Dual polar graphs, a nil-DAHA of rank one, and non-symmetric dual q-Krawtchouk polynomials
Jae-Ho Lee, Hajime Tanaka

http://arxiv.org/abs/1709.08176
On a Neumann-type series for modified Bessel functions of the first kind
L. Deleaval, N. Demni

http://arxiv.org/abs/1709.08835
Non-classical behaviour of coherent states for systems constructed using exceptional orthogonal polynomials
Scott E. Hoffmann, Véronique Hussin, Ian Marquette, Yao-Zhong Zhang

http://arxiv.org/abs/1709.09656
Asymptotic approximations to the nodes and weights of Gauss-Hermite and Gauss-Laguerre quadratures
A. Gil, J. Segura, N. M. Temme

http://arxiv.org/abs/1710.00088
Inclusive Prime Number Races
Greg Martin, Nathan Ng

http://arxiv.org/abs/1710.00736
Noncommutative Painlevé equations and systems of Calogero type
Marco Bertola, Mattia Cafasso, Vladimir Roubtsov

http://arxiv.org/abs/1710.00788
Zeons, Permanents, the Johnson scheme, and Generalized Derangements
Philip Feinsilver, John McSorley

http://arxiv.org/abs/1710.00801
Colorful combinatorics and Macdonald polynomials
Ryan Kaliszewski, Jennifer Morse

http://arxiv.org/abs/1710.00726
On Generalized Stam Inequalities and Fisher-Rényi Complexity Measures
Steeve Zozor, David Puertas-Centeno, Jesús S. Dehesa

http://arxiv.org/abs/1710.02698
Sobolev extremal polynomials with respect to mutually singular measures
A. Diaz Gonzalez, G. Lopez Lagomasino, H. Pijeira Cabrera

http://arxiv.org/abs/1710.03221
On the interplay between hypergeometric functions, complete elliptic integrals and Fourier-Legendre series expansions
John M. Campbell, Jacopo D'Aurizio, Jonathan Sondow

http://arxiv.org/abs/1710.03304
Algebraic relations between solutions of Painlevé equations
James Freitag

http://arxiv.org/abs/1710.03589
Algebraic calculations for spectrum of superintegrable system from exceptional orthogonal polynomials
Md Fazlul Hoque, Ian Marquette, Sarah Post, Yao-Zhong Zhang

http://arxiv.org/abs/1710.04295
A short note on the scaling function constant problem in the two-dimensional Ising model
Thomas Bothner

http://arxiv.org/abs/1710.04411
Asymptotic analysis on a pseudo-Hermitian Riemann-zeta Hamiltonian
Carl M. Bender, Dorje C. Brody

http://arxiv.org/abs/1710.04733
A poset Φ_n whose maximal chains are in bijection with the $n \times n$ alternating sign matrices
Paul Terwilliger

http://arxiv.org/abs/1710.04967
Some generating functions for q-polynomials
Howard S. Cohl, Roberto S. Costas-Santos, Tanay V. Wakhare

http://arxiv.org/abs/1710.05059
On weighted approximation with Jacobi weights
Kirill A. Kopotun, Dany Leviatan, Igor A. Shevchuk

http://arxiv.org/abs/1710.06011
The quantum adjacency algebra and subconstituent algebra of a graph
Paul Terwilliger, Arjana Žitnik

http://arxiv.org/abs/1710.07127
Identities involving Bernoulli and Euler polynomials
Horst Alzer, Semyon Yakubovich

http://arxiv.org/abs/1710.07199
Constructions of the soluble potentials for the non-relativistic quantum system by means of the Heun functions
Shishan Dong, G. Yanez-Navarro, M. A. Mercado Sanchez, C. Mejia Garcia, Guo-Hua Sun, Shi-Hai Dong

http://arxiv.org/abs/1710.07889
New identities for a sum of products of the Kummer functions
S. I. Kalmykov, D. B. Karp

http://arxiv.org/abs/1710.08132
Gap probability at the hard edge for random matrix ensembles with pole singularities in the potential
Dan Dai, Shuai-Xia Xu, Lun Zhang

http://arxiv.org/abs/1710.08237
Lower bounds on the number of realizations of rigid graphs
Georg Grasegger, Christoph Koutschan, Elias Tsigaridas

http://arxiv.org/abs/1710.08654
Orthogonal structure on a wedge and on the boundary of a square
Sheehan Olver, Yuan Xu

http://arxiv.org/abs/1710.10073
Globally exact asymptotics for integrals with arbitrary order saddles
Thomas Bennett, Christopher J. Howls, Gergő Nemes, Adri B. Olde Daalhuis

http://arxiv.org/abs/1710.10344
A Treatise on Sucker's Bets
Shalosh B. Ekhad, Doron Zeilberger

Other Relevant OP-SF E-Prints

http://arxiv.org/abs/1709.00070
A New Integrable Ising-type Model from 2d $\mathcal{N}$=(2,2) Dualities
Shahriyar Jafarzade, Zainab Nazari

http://arxiv.org/abs/1709.00159
Contiguous Relations, Laplace's Methods and Continued Fractions for ${}_3F_2(1)$
Akihito Ebisu, Katsunori Iwasaki

http://arxiv.org/abs/1709.00448
Fractional Laplacians on the sphere, the Minakshisundaram zeta function and semigroups
P. L. De Nápoli, P. R. Stinga

http://arxiv.org/abs/1709.00461
Generalized generating functional for mixed-representation Green's functions: A quantum mechanical approach
Massimo Blasone, Petr Jizba, Luca Smaldone

http://arxiv.org/abs/1709.00534
Cubic Polynomials, Linear Shifts, and Ramanujan Cubics
Gregory Dresden, Prakriti Panthi, Anukriti Shrestha, Jiahao Zhang

http://arxiv.org/abs/1709.00705
On moduli of smoothness with Jacobi weights
Kirill A.Kopotun, Dany Leviatan, Igor A. Shevchuk

http://arxiv.org/abs/1709.00713
Differential Zeros of Certain Special Functions
Jingyue Chen, An Huang, Bong H. Lian, Shing-Tung Yau

http://arxiv.org/abs/1709.00976
Positive powers of the Laplacian: from hypersingular integrals to boundary value problems
Nicola Abatangelo, Sven Jarohs, Alberto Saldaña

http://arxiv.org/abs/1709.01287
Polynomial Ensembles and Recurrence Coefficients
Adrien Hardy

http://arxiv.org/abs/1709.01963
The function field Sathé-Selberg formula in arithmetic progressions and 'short intervals'
Ardavan Afshar, Sam Porritt

http://arxiv.org/abs/1709.02164
Stable evaluation of Gaussian radial basis functions using Hermite polynomials
Anna Yurova, Katharina Kormann

http://arxiv.org/abs/1709.02229
Riordan arrays and generalized Euler polynomials
E. Burlachenko

http://arxiv.org/abs/1709.02290
On $6j$-symbols for symmetric representations of $U_q(\mathfrak{su}_N)$
A. Mironov, A. Morozov, A. Sleptsov

http://arxiv.org/abs/1709.02870
Mellin transformation, propagation, and abelian duality spaces
Yongqiang Liu, Laurentiu Maxim, Botong Wang

http://arxiv.org/abs/1709.03037
Exploring the zeros of real self-reciprocal polynomials by Chebyshev polynomials
Vanessa Botta

http://arxiv.org/abs/1709.03398
More Infinite Products: Thue-Morse and the Gamma function
Jean-Paul Allouche, Samin Riasat, Jeffrey Shallit

http://arxiv.org/abs/1709.03475
Some integrals of hypergeometric functions
András Biró

http://arxiv.org/abs/1709.03476
Classical Conformal Blocks and Accessory Parameters from Isomonodromic Deformations
Máté Lencsés, Fábio Novaes

http://arxiv.org/abs/1709.04042
Winding of simple walks on the square lattice
Timothy Budd

http://arxiv.org/abs/1709.04080
Some identities involving Appell polynomials
Miloud Mihoubi, Said Taharbouchet

http://arxiv.org/abs/1709.04144
Regulators of K_1 of Hypergeometric Fibrations
Masanori Asakura, Noriyuki Otsubo

http://arxiv.org/abs/1709.04406
Life-span of solutions to semilinear wave equation with time-dependent critical damping for specially localized initial data
Masahiro Ikeda, Motohiro Sobajima

http://arxiv.org/abs/1709.04799
The maximal order of iterated multiplicative functions
Christian Elsholtz, Marc Technau, Niclas Technau

http://arxiv.org/abs/1709.04848
Hitting time and mixing time bounds of Stein's factors
Michael C. H. Choi

http://arxiv.org/abs/1709.04910
Convergence of row sequences of simultaneous Padé-Faber approximants
Nattapong Bosuwan

http://arxiv.org/abs/1709.05224
Pfaffian definitions of Weierstrass elliptic functions
Gareth Jones, Harry Schmidt

http://arxiv.org/abs/1709.05388
Recurrence relations for Apostol-Bernoulli, -Euler and -Genocchi polynomials of higher order
Marc Prévost

http://arxiv.org/abs/1709.05389
Remainder Padé approximants for the Hurwitz zeta function
Marc Prévost

https://arxiv.org/abs/1709.05796
Asymptotic behaviour of the Bessel heat kernels
Kamil Bogus

http://arxiv.org/abs/1709.06006
Properties of Logarithmic Derivatives of Jacobi's Theta Functions on a Logarithmic Scale
Markus Faulhuber

http://arxiv.org/abs/1709.06020
A systematic method for constructing discrete Painlevé equations in the degeneration cascade of the E_8 group
Ralph Willox, Alfred Ramani, Basil Grammaticos

http://arxiv.org/abs/1709.06082
Efficient Legendre polynomials transforms: from recurrence relations to Schoenberg's theorem
Enrico Onofri

http://arxiv.org/abs/1709.06268
On Asymptotic Behaviors of Generalized Gegenbauer Functions of Fractional Degree
Wenjie Liu, Li-Lian Wang

http://arxiv.org/abs/1709.06445
An elementary property of correlations
Giovanni Coppola

http://arxiv.org/abs/1709.06960
The Devil is in the Details: Spectrum and Eigenvalue Distribution of the Discrete Preisach Memory Model
Tamas Kalmar-Nagy, Andreas Amann, Daniel Kim, Dmitrii Rachinskii

http://arxiv.org/abs/1709.07147
Two-dimensional Dirac particles in a Pöschl-Teller waveguide
R. R. Hartmann, M. E. Portnoi

http://arxiv.org/abs/1709.07148
Lens elliptic gamma function solution of the Yang-Baxter equation at roots of unity
Andrew P. Kels, Masahito Yamazaki

http://arxiv.org/abs/1709.07365
The generating function for the Bessel point process and a system of coupled Painlevé V equations
Christophe Charlier, Antoine Doeraene

http://arxiv.org/abs/1709.07496
Factorization method and general second order linear difference equation
Alina Dobrogowska, Mahouton Norbert Hounkonnou

http://arxiv.org/abs/1709.07937
Sliced-Inverse-Regression-Aided Rotated Compressive Sensing Method for Uncertainty Quantification
Xiu Yang, Weixuan Li, Alexandre Tartakovsky

http://arxiv.org/abs/1709.08324
Generalized fractional operator representations of Jacobi type orthogonal polynomials
K. S. Nisar

http://arxiv.org/abs/1709.08435
Simple evaluation of one of Malmstén's integrals
Uwe Bäsel

http://arxiv.org/abs/1709.08440
Heun polynomials and exact solutions for the massless Dirac particle in the C-metric
Priyasri Kar, Ritesh K. Singh, Ananda Dasgupta, Prasanta K. Panigrahi

http://arxiv.org/abs/1709.08550
Asymptotic formulae for Eulerian series
Nian Hong Zhou

http://arxiv.org/abs/1709.08896
New Quantum System of Wilson Orthogonal Polynomial
Tunde Joseph Taiwo

http://arxiv.org/abs/1709.09078
Stokes phenomenon and confluence in non-autonomous Hamiltonian systems
Martin Klimes

http://arxiv.org/abs/1709.09146
L^1 completeness for Fourier series
P. L. Robinson

http://arxiv.org/abs/1709.09326
Parseval's Identity and Values of Zeta Function at Even Integers
Asghar Ghorbanpour, Michelle Hatzel

http://arxiv.org/abs/1709.09329
Hypergeometric integrals associated with hypersphere arrangements and Cayley-Menger determinants
Kazuhiko Aomoto, Yoshinori Machida

http://arxiv.org/abs/1709.09719
On connection coefficients, zeros and interception points of some perturbed of arbitrary order of the Chebyshev polynomials of second kind
Zélia da Rocha

http://arxiv.org/abs/1709.10003
Beta-Function Identities via Probabilistic Approach
P. Vellaisamy, A. Zeleke

http://arxiv.org/abs/1709.10333
Doubly-resonant saddle-nodes in $(\mathbb{C}^3, 0)$ and the fixed singularity at infinity in Painlevé equations: analytic classification
Amaury Bittmann

http://arxiv.org/abs/1710.00143
Sub classes of Bi-Univalent Functions Defined by Salagean type q-Difference Operator
G. Murugusundaramoorthy, K. Vijaya

http://arxiv.org/abs/1710.00603
Turing's method for the Selberg zeta-function
Andrew R. Booker, David J. Platt

http://arxiv.org/abs/1710.00687
Series with Hermite Polynomials and Applications
Khristo N. Boyadzhiev, Ayhan Dil

http://arxiv.org/abs/1710.01522
q-difference equations concerning with q-gamma function
Zhibo Huang, Ranran Zhang

http://arxiv.org/abs/1710.01575
A domain containing all zeros of the partial theta function
Vladimir Petrov Kostov

http://arxiv.org/abs/1710.01812
Transmutation of a Trans-series: The Gross-Witten-Wadia Phase Transition
Anees Ahmed, Gerald V. Dunne

http://arxiv.org/abs/1710.02190
Uniform bounds for lattice point counting and partial sums of zeta functions
David Lowry-Duda, Takashi Taniguchi, Frank Thorne

http://arxiv.org/abs/1710.02975
Spherical functions for small K-types
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Topic #6 ——— OP - SF Net 24.6 ——— November 15, 2017

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 24.7 should be sent by January 1, 2018.

OP-SF NET is an electronic newsletter of the SIAM Activity Group on Special Functions and Orthogonal Polynomials. We disseminate your contributions on anything of interest to the special functions and orthogonal polynomials community. This includes announcements of conferences, forthcoming books, new software, electronic archives, research questions, and job openings as well as news about new appointments, promotions, research visitors, awards and prizes. OP-SF Net is transmitted periodically through a post to SIAM-OPSF (OP-SF Talk).

SIAM-OPSF (OP-SF Talk) is a listserv of the SIAM Activity Group on Special Functions and Orthogonal Polynomials, which facilitates communication among members, and friends of the Activity Group. See the previous Topic. To post an item to the listserv, send e-mail to siam-opsf@siam.org.

WWW home page of this Activity Group:
http://math.nist.gov/opsf
Information on joining SIAM and this activity group: service@siam.org

The elected Officers of the Activity Group (2017–2019) are:

Walter Van Assche, Chair
Andrei Martínez-Finkelshtein, Vice Chair
Sarah Post, Program Director
Yuan Xu, Secretary

The appointed officers are:

Howard Cohl, OP-SF NET co-editor
Sarah Post, OP-SF NET co-editor
Diego Dominici, OP-SF Talk moderator
Bonita Saunders, Webmaster and OP-SF Talk moderator

Thought of the month

"La découverte est le privilège de l'enfant. C'est du petit enfant que je veux parler, l'enfant qui n'a pas peur encore de se tromper, d'avoir l'air idiot, de ne pas faire sérieux, de ne pas faire comme tout le monde. Il n'a pas peur non plus que les choses qu'il regarde aient le mauvais goût d'être différentes de ce qu'il attend d'elles, de ce qu'elles devraient être, ou plutôt : de ce qu'il est bien entendu qu'elles s o n t. Il ignore les consensus muets et sans failles qui font partie de l'air que nous respirons – celui de tous les gens censés et bien connus comme tels."

English translation: "Discovery is a child's privilege. I mean the small child, the child who is not afraid to be wrong, to look silly, to not be serious, and to act differently from everyone else. He is also not afraid that the things he is interested in are in bad taste or turn out to be different from his expectations, from what they should be, or rather he is not afraid of what they actually are. He ignores the silent and flawless consensus that is part of the air we breathe – the consensus of all the people who are, or are reputed to be, reasonable."

Alexander Grothendieck (1928–2014), Récoltes et Semailles, Fatuité et Renouvellement (Sommaire), Travail et découverte, 5.1.(1) L'enfant et le Bon Dieu, page 1, June 1983.