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The Electronic News Net of the SIAM Activity Group on Orthogonal Polynomials and Special Functions

http://math.nist.gov/opsf

OP-SF Net is distributed through OP-SF Talk. Subscribe to OP-SF Talk at http://lists.siam.org/mailman/listinfo/siam-OPSF.

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Calendar of Events:

November 16-17, 2016

Workshop on Orthogonal Polynomials and Special Functions, The H.C. Ørsted Institute (HCØ), University of Copenhagen, Denmark http://www.math.ku.dk/~henrikp/w2016

November 28-December 02, 2016

International Conference on Mathematical Analysis and its Applications 2016, Department of Mathematics, Indian Institute of Technology Roorkee, Roorkee, India http://www.iitr.ac.in/icmaa/2016/index.html

January 4-7, 2017

2017 Joint Mathematics Meetings, American Mathematical Society, Hyatt Regency Atlanta and Marriott Atlanta Marquis, Atlanta, Georgia, USA

AMS Special Session on Orthogonal Polynomials, Organized by Doron Lubinsky and Jeff Geronimo, http://jointmathematicsmeetings.org/meetings/national/jmm2017/2180_program_ss17.html

AMS Special Session on Symmetries, Integrability, and Beyond, Organized by Maria Clara Nucci and Sarah Post, http://jointmathematicsmeetings.org/meetings/national/jmm2017/2180_program_ss61.html

AMS Special Session on Continued Fractions, Organized by James McLaughlin, Geremías Polanco and Nancy J. Wyshinski, http://jointmathematicsmeetings.org/meetings/national/jmm2017/2180_program_ss38.html

AMS Special Session on Complex Analysis and Special Functions., Organized by Brock Williams, Kendall Richards and Alex Solynin, http://jointmathematicsmeetings.org/meetings/national/jmm2017/2180_program_ss40.html

March 20-24, 2017

Elliptic Hypergeometric Functions in Combinatorics, Integrable Systems and Physics Erwin Schrödinger Institute, Vienna, Austria http://www.esi.ac.at/activities/events/2017/elliptic-hypergeometric-functions

June 26-30, 2017

OPSF-S7 Summer School on Orthogonal Polynomials and Special Functions, University of Kent, Canterbury, UK http://www.kent.ac.uk/smsas/personal/opsfa

July 3-7, 2017

14th International Symposium on Orthogonal Polynomials, Special Functions and Applications (OPSFA14), University of Kent, Canterbury, UK http://www.kent.ac.uk/smsas/personal/opsfa

July 10-15, 2017

Computational Methods and Function Theory, Maria Curie–Skłodowska University, Lublin, Poland http://cmft2017.umcs.lublin.pl

July 10-19, 2017

Foundations of Computational Mathematics, Barcelona, Spain http://www.ub.edu/focm2017/index.html

Topic #1 _____ OP – SF Net 23.5 _____ September 15, 2016

From: Sarah Post (spost@hawaii.edu) Subject: OPSF at the JMM: Special Sessions

Among the Special Sessions at the Joint Math Meetings in Atlanta, Georgia held from January 4-7, 2017, are sessions on: Orthogonal Polynomials organized by Doron Lubinsky and Jeff Geronimo, Symmetries, Integrability and Beyond organized by Clara Nucci and Sarah Post, Continued Fractions organized by James McLaughlin, Geremías Polanco and Nancy J. Wyshinski, and Complex Analysis and Special Functions organized by Brock Williams, Kendall Richards and Alex Solynin.

The AMS Special Session on "Orthogonal Polynomials" will take place Wednesday January 4th, 2:15 pm-6:05 pm and Thursday January 5th, 8:00 am-11:50 am. Confirmed speakers include:

- Jorge Arvesu, Universidad Carlos III de Madrid
- Walter Van Assche, KU Leuven
- Jonathan Breuer, Hebrew University of Jerusalem
- Serguei Denissov, University of Wisconsin-Madison
- Maxim Derevyagin, The University of Mississippi
- Ulises Fidalgo, The University of Mississippi
- Jeff Geronimo, Georgia Institute of Technology
- Karl Liechty, DePaul University
- Milivoje Lukic, Rice University
- Abey López-García, University of South Alabama
- Erwin Miña-Díaz, University of Mississippi
- Ed Saff, Vanderbilt University
- Brian Simanek, Baylor University
- Barry Simon, California Institute of Technology
- Maxim Yattselev, Indiana University-Purdue University Indianapolis

The AMS Special Session on "Symmetries, Integrability and Beyond" will take place Friday January 5th, 8:00-11:50 am and 2:15-6:05 pm. Confirmed speakers include:

- Barbara Abraham-Shrauner, Washington University in St. Louis
- Adrián Mauricio Escobar Ruiz, Universidad Nacional Autonóma de México
- Vincent Genest, Massachusetts Institute of Technology
- Emily Gunawan, University of Minnesota
- Irina Kogan, North Carolina State University
- Wen-Xiu Ma, University of South Florida
- Willard Miller Jr., University of Minnesota
- Robert Milson, Dalhousie University
- Maria Clara Nucci, Universita degli Studi di Perugia
- Sarah Post, University of Hawai'i at Mānoa
- Konrad P. Schöbel, Friedrich-Schiller-Universität Jena
- Alexander Turbiner, Universidad Nacional Autonoma de Mexico
- Luc Vinet, Université de Montréal and CRM
- Pavel Winternitz, Université de Montréal

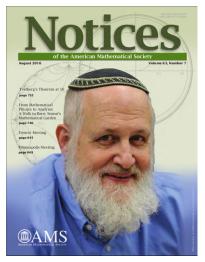
A schedule including all special sessions can be found at: http://jointmathematicsmeetings.org/meetings/national/jmm2017/2180_special.html.

From: Howard Cohl (Howard.Cohl@nist.gov)

Subject: OPSF at the JMM: AMS Invited Address by Barry Simon

Barry Simon, Caltech, will be giving an invited address at the Joint Math meetings January 4-7, 2017 in Atlanta, Georgia, USA (see also Topic #1). The title of his plenary lecture is "Spectral theory sum rules, Meromorphic Herglotz functions and large deviations" and it will be held on Wednesday, January 4th at 10:05 am.

Barry Simon recently received the 2016 AMS Leroy P. Steele Prize for Lifetime Achievement. His 70th birthday was recently celebrated with joint symposiums at the Fields Institute and the Centre de Recherches Mathématiques. Two feature articles, edited by Fritz Gesztesy, in Notices of the AMS chronicle his wide ranging contributions in mathematical physics, operator theory, and of course orthogonal poly-



nomials. In particular, contributions by David Damanik and Andrei Martínez-Finkelshtein discuss Barry Simon's fundamental advances in the theory of orthogonal polynomials.

The features are available here:

http://www.ams.org/publications/journals/notices/201607/rnoti-p740.pdf http://www.ams.org/publications/journals/notices/201608/rnoti-p878.pdf For more information about the JMM see: http://jointmathematicsmeetings.org/meetings/national/jmm2017/2180_program.html.

Topic #3 _____ OP - SF Net 23.5 _____ September 15, 2016

From: Michael Schlosser (michael.schlosser@univie.ac.at) Subject: Announcement: Workshop on Elliptic Hypergeometric Functions in Vienna

The workshop "Elliptic Hypergeometric Functions in Combinatorics, Integrable Systems and Physics" will be held at the Erwin Schrödinger Institute in Vienna, Austria, on March 20-24, 2017.

The organizers are:

Christian Krattenthaler, University of Vienna Masatoshi Noumi. Kobe University Simon Ruijsenaars, University of Leeds Michael J. Schlosser, University of Vienna Vyacheslav P. Spiridonov, JINR, Dubna S. Ole Warnaar, University of Queensland

Elliptic hypergeometric functions are a relatively new class of special functions which first appeared 30 years ago implicitly as "elliptic 6j symbols" in work on the Yang-Baxter equation by E. Date, M. Jimbo, A. Kuniba, T. Miwa, and M. Okado. Since then, they have been shown to be related to various areas of mathematics, including integrable systems, combinatorics and mathematical physics. This workshop brings together leading experts on elliptic hypergeometric functions from different areas.

The topics of the workshop include:

- Elliptic integrable systems and elliptic Painlevé equations
- Univariate and multivariate elliptic hypergeometric series and biorthogonal functions
- Elliptic determinants and theta functions on root systems
- Combinatorics of elliptic hypergeometric functions
- Elliptic hypergeometric integrals in quantum field theory

We plan to have five introductory lectures delivered by (titles are tentative):

Fokko van de Bult, Hypergeometric functions and integrals Masatoshi Noumi, Discrete Painlevé equations and special functions Simon Ruijsenaars, Quantum integrable systems of elliptic Calogero-Moser type Michael J. Schlosser, Elliptic hypergeometric combinatorics Vyacheslav P. Spiridonov, Elliptic hypergeometric integrals: Bailey lemma, Yang-Baxter equation, and superconformal indices

Further, there will be talks by participants.

Attendance, restricted to 60 participants, is by invitation only. If you wish to be invited, please contact michael.schlosser@univie.ac.at.

For more information, see: http://www.esi.ac.at/activities/events/2017/elliptic-hypergeometric-functions

Topic #4 _____ OP - SF Net 23.5 _____ September 15, 2016

From: Peter Clarkson (P.A.Clarkson@kent.ac.uk) Subject: OPSF-S7: Summer School on "Orthogonal Polynomials and Special Functions"

The next Summer School on "Orthogonal Polynomials and Special Functions" (OPSF-S7) will be held at the University of Kent, Canterbury, UK, June 26-30, 2017. There will be three lecture courses:

"Properties of Orthogonal Polynomials" by Kerstin Jordaan, University of Pretoria, RSA "Discrete Painlevé Equations" by Nalini Joshi, University of Sydney, Australia "Multiple Orthogonal Polynomials" by Walter Van Assche, KU Leuven, Belgium

These lecture courses will be supplemented by daily tutorial sessions and there will also be some guest lectures. Further information will be circulated later this year.

Topic #5 _____ OP - SF Net 23.5 _____ September 15, 2016

From: Peter Clarkson (P.A.Clarkson@kent.ac.uk) Subject: OPSFA-14: "Orthogonal Polynomials, Special Functions and Applications"

The next conference "Orthogonal Polynomials, Special Functions and Applications" (OPSFA-14) will be held at the University of Kent, Canterbury, UK, July 3–7, 2017. The following have agreed to give plenary lectures:

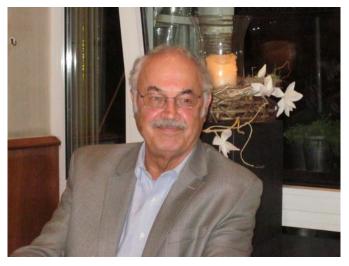
Jonathan Breuer, Hebrew University of Jerusalem, Israel Sylvie Corteel, CNRS, Paris, France David Gómez–Ullate, Universidad Complutense de Madrid, Spain Evelyne Hubert, INRIA, Sophia Antipolis, France Arieh Iserles, University of Cambridge, UK Alexander Its, Indiana University–Purdue University Indianapolis, USA Arno Kuijlaars, KU Leuven, Belgium Marta Mazzocco, Loughborough University, UK Peter Miller, University of Michigan, Ann Arbor, USA Margit Rösler, University of Paderborn, Germany Nina Snaith, University of Bristol, UK Jacek Szmigielski, University of Saskatchewan, Saskatoon, Canada

Additionally the winner of the Szegő prize will also give a plenary talk. Further information will be circulated later this year.

Topic #6 _____ OP – SF Net 23.5 _____ September 15, 2016

From: Erik Koelink (ekoelink@math.ru.nl) and Jasper Stokman (J.V.Stokman@uva.nl) Subject: Report on Dunkl 75th Birthday Conference in Paderborn, Germany

The conference "Dunkl operators, special functions and harmonic analysis" was held in Paderborn, Germany, August 8–12, 2016 to celebrate Charles Dunkl's 75 birthday and his contributions to mathematics (Charles's 75th birthday actually has taken place by the time you receive this newsletter). The title of the conference is very apt. Charles has done, and still does, major work in the field of harmonic analysis. He has become famous for the introduction of the Dunkl operators, which appeared in his paper in the Transactions of the AMS in 1989. Dunkl op-



erators are commuting differential-reflection operators that generalise first order partial derivatives. Dunkl operators and their generalisations have been used to explain inte-grability of important classes of one-dimensional many body systems in mathematical

physics. They have led to the discovery of new Hecke algebraic structures called Cherednik algebras, or double affine Hecke algebras. Cherednik algebras have a wide range of applications in harmonic analysis, enumerative combinatorics, algebraic geometry, multivariate special function theory, mathematical physics and recently also in low-dimensional topology. Charles's book, joint with Yuan Xu, "Orthogonal polynomials of several variables" highlights the role of Dunkl operators in the theory of multivariate orthogonal polynomials.

'Dunkl' has become an adjective to many mathematical structures, such as Dunkl-Laplacian operator, Dunkl-Dirac operator and Dunkl-Hermite expansion. MathSciNet lists 444 papers which have 'Dunkl' in the title! However, it should be stressed that Charles has also done a lot of successful work in hypergroups and harmonic analysis on finite groups, leading to various interesting results in orthogonal polynomials, such as e.g., an addition formula for q-Hahn polynomials. At the meeting Charles's achievements have been highlighted by the main organiser Margit Rösler, who also showed several pictures of Charles through the years.

There was a dense schedule of lectures, with plenary lectures in the morning and in the first half of the afternoon, and parallel lectures in the second half of the afternoon. The lectures showed the wide variety of mathematical developments involving Dunkl operators, or linked to other mathematical ideas of Charles. Dunkl operators and their role in multivariate special function theory and harmonic analysis were discussed by Yuan Xu, Léonard Gallardo, Bechir Amri, Sundaram Thangavelu, Vincent Genest, Hiroshi Oda, Sid-dhartha Sahi and various others. In many lectures, representation theory and mathematical physics played a role. The mathematical physics aspects were discussed in a variety of different settings by Simon Ruijsenaars, Peter Forrester, Jasper Stokman and Luc Vinet. The representation theoretic aspects were addressed by Bent Ørsted and Hiroshi Oda. Of course, double affine Hecke algebras appeared in various lectures, especially the ones by Stephen Griffeth, Monica Vazirani, Misha Feigin and Siddhartha Sahi. There were several lectures on special functions by Ruiming Zhang, Dennis Stanton, Mourad Ismail and Tom Koornwinder. There was also a very nice lecture by Yuri Berest on topological applications, as well as a very lively lecture on Dunkl operators and parking functions by lain Gordon.

The social programme consisted of a conference dinner and an excursion to a nearby monastery, Schloß Corvey. The privately-owned monastery was the scene of a very interesting and long history. Many historic comments were also made in the many speeches at the conference dinner, where several people discussed their reminiscences on Charles and his work. There were speeches by Margit Rösler, Tom Koornwinder, who also read a letter by Eric Opdam, who could not attend the meeting, and several other participants. Naturally, Charles's speech was listened to attentively, and he recalled amongst other things how he always adapted to conventions of his coauthors, for instance as to actions from the left or from the right. So only his single-authored papers follow his own conventions. The speech at the conference dinner allowed Charles to present his lecture "Hypergeometry, the Torus, and Representations of the Symmetric Groups" in a purely mathematical way.

The organising committee for the meeting consisted of Margit Rösler, Michael Voit, Mourad Ismail, Tom Koornwinder, and Eric Opdam. It was clear that Margit Rösler was the driving force behind the meeting, and on behalf of all of the participants we thank her for all the work she has put into making the meeting a success.

From: Tom Koornwinder (T.H.Koornwinder@uva.nl)

Subject: Review of "My search for Ramanujan" by Ken Ono and Amir D. Aczel

A review of the book "My Search for Ramanujan" by Ken Ono and Amir D. Aczel is featured in the September 2016 issue of Notices of the AMS.

Topic #8 _____ OP – SF Net 23.5 _____ September 15, 2016

From: Kerstin Jordaan (Kerstin.Jordaan@up.ac.za) Subject: Call for Nominations for the third Stephen Smale Prize

The third Stephen Smale Prize will be awarded at the meeting Foundations of Computational Mathematics (FoCM) in Barcelona, between July 10th – 19th, 2017. See http://www.ub.edu/focm2017.

The Society for the Foundations of Computational Mathematics was created in the summer of 1995, following a month-long meeting in Park City, Utah, which was principally organized by Steve Smale, "to strengthen the unity of mathematics and numerical analysis, and to narrow the gap between pure and applied mathematics." Smale's vision has been the Society's inspiration for all these years. The Journal "Foundations of Computational Mathematics" was created; several colloquia and research semesters were organized, and an international conference is held every three years. After fifteen years of existence, with an established and recognized position in the scientific community, the Society created the "Stephen Smale Prize" whose objective is to recognize the work of a young mathematician in the areas at the heart of the society's interests and to help to promote his or her integration among the leaders of the scientific community. The first Stephen Smale Prize was awarded in 2011 to Snorre H. Christiansen; the recicipients of the second Smale prize in 2014 were Carlos Beltran and Mark Braverman.

More information and prize rules can be found at http://www.ub.edu/focm2017/smaleprize.html.

Nominations should be sent to the FoCM Co-Chair/Secretary Angela Kunoth (kunoth@math.uni-koeln.de) as a single pdf-file until October 9th 2016, 24:00 (GMT).

Topic #9 _____ OP – SF Net 23.5 _____ September 15, 2016

From: Alfredo Deaño-Cabrera (A.Deano-Cabrera@kent.ac.uk) Subject: Lectureship/Senior Lectureship with Immediate Deadline at U. of Kent, UK

The School of Mathematics, Statistics and Actuarial Science at the University of Kent is advertising for a lectureship/senior lectureship in Mathematics.

The deadline is September 18th and interviews will be held on Friday 7th October.

For job advertisement, see link here.

From: Walter Van Assche (Walter.VanAssche@wis.kuleuven.be) Subject: Postdoctoral Positions with Immediate Deadline in Sydney, Australia

The Integrable Systems research group at the University of Sydney, Australia, is advertising three postdoctoral research positions.

Applications close on 21 September, 2016 at 11:30 pm.

You can see the full advertisement here.

Topic #11 _____ OP – SF Net 23.5 _____ September 15, 2016

From: Francisco (Paco) Marcellán (pacomarc@ing.uc3m.es) Subject: PhD grants Immediately Available with Paco Marcellán in Madrid, Spain

PhD grants in the research project entitled "Orthogonality, Approximation Theory and Applications in Mathematical Physics" (with reference number MTM2015-65888-C4-2-P) are available at the host institution Departamento de Matemáticas de la Universidad Carlos III de Madrid.

The conditions are:

Duration: 4 years;

Tuition fees and predoctoral mobility: up to 6,250€;

PhD Students that defend their thesis before the 4-year period is over will be awarded a one-year postdoctoral contract.

Applications open on 13 September 2016 and the deadline or applications is: 27 September 2016 at 15h00.

All the information can be found here in Spanish.

Please contact Francisco (Paco) Marcellán (pacomarc@ing.uc3m.es) for more information.

Topic #12 _____ OP – SF Net 23.5 _____ September 15, 2016

From: Amit Apte (apte@icts.res)

Subject: Tenure-track faculty positions at ICTS-TIFR, Bangalore, India

The International Centre for Theoretical Sciences (ICTS) of the Tata Institute of Fundamental Research (TIFR) is seeking applications from candidates with outstanding academic records for one or more faculty positions in Mathematics at junior and senior levels.

We encourage applicants with research experience in any area of mathematics. Examples of specific research areas that we are looking for include, but are not limited to, probability and stochastic analysis, geometry and topology, mathematical physics, dynamical systems and differential equations, scientific computing, applied mathematics in general, and theoretical computer science.

For more details and a link to the application form, please see https://www.icts.res.in/faculty-mathematics.

Topic #13 _____ OP – SF Net 23.5 _____ September 15, 2016

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 2016.

http://arxiv.org/abs/1602.0862v2

Jacobi polynomials, Bernstein-type inequalities and dispersion estimates for the discrete Laguerre operator

T. Koornwinder, A. Kostenko, G. Teschl

http://arxiv.org/abs/1607.00039

Koornwinder polynomials and the stationary multi-species asymmetric exclusion process with open boundaries Luigi Cantini, Alexandr Garbali, Jan de Gier, Michael Wheeler

http://arxiv.org/abs/1607.00427

A unified approach of blow-up phenomena for two-dimensional singular Liouville systems

Luca Battaglia, Angela Pistoia

http://arxiv.org/abs/1607.00606

Cyclic tridiagonal pairs, higher order Onsager algebras and orthogonal polynomials P. Baseilhac, A.M. Gainutdinov, T.T. Vu

http://arxiv.org/abs/1607.00709

New computations of the Riemann zeta function on the critical line Jonathan W. Bober, Ghaith A. Hiary

http://arxiv.org/abs/1607.00736

Duality theorems of multiple zeta values with parameters Chan-Liang Chung, Minking Eie

http://arxiv.org/abs/1607.00930

Orthogonal polynomial projection error measured in Sobolev norms in the unit ball Leonardo E. Figueroa

http://arxiv.org/abs/1607.00979

Maximal operators of exotic and non-exotic Laguerre and other semigroups associated with classical orthogonal expansions Adam Nowak, Peter Sjögren, Tomasz Z. Szarek

Demazure flags, *q*-Fibonacci polynomials and hypergeometric series Rekha Biswal, Vyjayanthi Chari, Deniz Kus

http://arxiv.org/abs/1607.01098

On the Fourier Transform of Bessel Functions over Complex Numbers – II: the General Case

Zhi Qi

http://arxiv.org/abs/1607.01351

On the Tracy-Widom_{β} beta distribution for $\beta = 6$ Tamara Grava, Andrey Kapaev, Alexander Its, Francesco Mezzadri

http://arxiv.org/abs/1607.01445

On Szegő's theorem for a nonclassical case Maxim Derevyagin, Brian Simanek

http://arxiv.org/abs/1607.01497

On Some Expansion Theorems Involving Confluent Hypergeometric $_2F_2(x)$ Polynomial Yashoverdhan Vyas, Kalpana Fatawat

http://arxiv.org/abs/1607.01500

General proof for irrationality of infinite sums based on Fourier's proof Tomer Shushi

http://arxiv.org/abs/1607.01542

On transformation formulae for Srivastava–Daoust type q-hypergeometric series Yashoverdhan Vyas, Kalpana Fatawat

http://arxiv.org/abs/1607.01571

The kite integral to all orders in terms of elliptic polylogarithms Luise Adams, Christian Bogner, Armin Schweitzer, Stefan Weinzierl

http://arxiv.org/abs/1607.01804

A Motivated Rendition of the Ellenberg–Gijswijt Gorgeous proof that the Largest Subset of

 F_3^n with No Three–Term Arithmetic Progression is $O(c^n)$, with $c = \sqrt[3]{(5589 + 891\sqrt{33})/8} = 2.75510461302363300022127...$ Doron Zeilberger

http://arxiv.org/abs/1607.01839

Asymptotic profiles of solutions for structural damped wave equations Ryo Ikehata, Hiroshi Takeda

http://arxiv.org/abs/1607.01937

On the curious series related to the elliptic integrals Semyon Yakubovich

http://arxiv.org/abs/1607.01962

The CMV bispectral problem F.A. Grünbaum, L. Velázquez

Multiple zeta functions of Kaneko-Tsumura type and their values at positive integers Shuji Yamamoto

http://arxiv.org/abs/1607.02057

On the linearized log-KdV equation Dmitry E. Pelinovsky

http://arxiv.org/abs/1607.02077

First hitting time of the boundary of a wedge of angle $\pi/4$ by a radial Dunkl process Nizar Demni

http://arxiv.org/abs/1607.02100

Relations between the generalized Bessel functions and the Janowski class S. Kanas, S. R. Mondal, A. D. Mohammed

http://arxiv.org/abs/1607.02564

A base-b extension of the binomial coefficient Tanay Wakhare, Christophe Vignat

http://arxiv.org/abs/1607.02701

Algebraic formulas for the coefficients of mock theta functions and Weyl vectors of Borcherds products Jan Hendrik Bruinier, Markus Schwagenscheidt

http://arxiv.org/abs/1607.02756

Marichev-Saigo-Maeda fractional operator representations of generalized Struve function K.S. Nisar

http://arxiv.org/abs/1607.02821

Discontinuity in the asymptotic behavior of planar orthogonal polynomials under a perturbation of the Gaussian weight Seung-Yeop Lee, Meng Yang

http://arxiv.org/abs/1607.03251

Majorization results for zeros of orthogonal polynomials Walter Van Assche

http://arxiv.org/abs/1607.03278

Partition of unity interpolation using stable kernel-based techniques R. Cavoretto, S. De Marchi, A. De Rossi, E. Perracchione, G. Santin

http://arxiv.org/abs/1607.03288 Critical zeros of lacunary L-functions J.B. Conrey, H. Iwaniec

http://arxiv.org/abs/1607.03746

On Multi Poly-Bernoulli Polynomials Roberto B. Corcino, Hassan Jolany, Cristina B. Corcino, Takao Komatsu

The structure of Deitmar Schemes, II. Zeta functions and automorphism groups Manuel Merida-Angulo, Koen Thas

http://arxiv.org/abs/1607.03820

Generalized Laguerre Polynomials with Position-Dependent Effective Mass Visualized via Wigner's Distribution Functions O Cherroudz, S-A Yahiaoui, M Bentaiba

http://arxiv.org/abs/1607.03840

Green's function for chordal SLE curves Mohammad A. Rezaei, Dapeng Zhan

http://arxiv.org/abs/1607.04101

A Moser type inequality for Bessel Laplace equations and applications Xuan Thinh Duong, Zihua Guo, Ji Li, Dongyong Yang

http://arxiv.org/abs/1607.04172

Exact and approximate solutions of Schrödinger's equation with hyperbolic double-well potentials Richard L. Hall, Nasser Saad

http://arxiv.org/abs/1607.04444

Parametric PDEs: Sparse or Low-Rank Approximations? Markus Bachmayr, Albert Cohen, Wolfgang Dahmen

http://arxiv.org/abs/1607.04494

Stokes Phenomena in Discrete Painlevé II Nalini Joshi, Christopher Lustri, Steven Luu

http://arxiv.org/abs/1607.04551

Approach to a Proof of the Riemann Hypothesis by the Second Mean-Value Theorem of Calculus Alfred Wünsche

http://arxiv.org/abs/1607.04693 Generalzed Bessel Recursion Relations M.L. Glasser

http://arxiv.org/abs/1607.04727

On Chebyshev type Inequalities using Generalized k-Fractional Integral Operator Vaijanth L. Chinchane

http://arxiv.org/abs/1607.04742

Special values of Gauss's hypergeometric series derived from Appell's series F_1 with closed forms Akihito Ebisu

http://arxiv.org/abs/1607.04852

p-adic Generalized Hypergeometric Equations from the Viewpoint of Arithmetic D-modules Kazuaki Miyatani

Integral transform of the Galue type Struve function D.L. Suthar, S.D. Purohit, K.S. Nisar

http://arxiv.org/abs/1607.04920

On equilibrium shapes of charged flat drops Cyrill B. Muratov, Matteo Novaga, Berardo Ruffini

http://arxiv.org/abs/1607.05106

Two Neumann Series Expansions for the Sine and Cosine Integrals Chance Sanford

http://arxiv.org/abs/1607.05168

Evaluation of Spectral Zeta-Functions with the Renormalization Group Stefan Boettcher, Shanshan Li

http://arxiv.org/abs/1607.05215

Algebraic Generating Functions for Gegenbauer Polynomials Robert S. Maier

http://arxiv.org/abs/1607.05314

Evaluation of binomial double sums involving absolute values Christian Krattenthaler, Carsten Schneider

http://arxiv.org/abs/1607.05453

Uniform bounds on locations of zeros of partial theta function Vladimir Petrov Kostov

http://arxiv.org/abs/1607.05629

On the Cesàro average of the "Linnik numbers" Marco Cantarini

http://arxiv.org/abs/1607.05776

Going Back to Neil Sloane's FIRST LOVE (OEIS Sequence A435): On the Total Heights in Rooted Labeled Trees Shalosh B. Ekhad, Doron Zeilberger

http://arxiv.org/abs/1607.06053

Dual addition formulas associated with dual product formulas Tom H. Koornwinder

http://arxiv.org/abs/1607.06196

Report from the Open Problems Session at OPSFA13 Howard S. Cohl

http://arxiv.org/abs/1607.06493

Partition function on spheres: how (not) to use zeta function regularization A. Monin

http://arxiv.org/abs/1607.06545 On two arithmetic theta lifts

Stephan Ehlen, Siddarth Sankaran

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Supersymmetry of the quantum rotor Vincent X. Genest, Luc Vinet, Guo-Fu Yu, Alexei Zhedanov

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On some identities appearing in "Special values of the hypergeometric series" by Ebisu Akihito Ebisu

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Comment on a paper "Watson – like Formulae for terminating ${}_3F_2$ series" by Chu and Zhou Arjun K. Rathie

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Nonintersecting Brownian bridges between reflecting or absorbing walls Karl Liechty, Dong Wang

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Inequalities for the exponential remainder of the Taylor series S.M. Sitnik

Topic #14 _____ OP – SF Net 23.5 _____ September 15, 2016

From: OP-SF Net Editors Subject: About the Activity Group

The SIAM Activity Group on Orthogonal Polynomials and Special Functions consists of a broad set of mathematicians, both pure and applied. The Group also includes engineers and scientists, students as well as experts. We have around 155 members scattered about in more than 20 countries. Whatever your specialty might be, we welcome your participation in this classical, and yet modern, topic. Our WWW home page is: http://math.nist.gov/opsf

This is a convenient point of entry to all the services provided by the Group. Our Web-master is Bonita Saunders (bonita.saunders@nist.gov).

The Activity Group sponsors OP-SF NET, an electronic newsletter, and SIAM-OPSF (OP-SF Talk), a listserv, as a free public service; membership in SIAM is not required. OP-SF NET is transmitted periodically through a post to OP-SF Talk. The OP-SF Net Editors are Howard Cohl (howard.cohl@nist.gov), Kerstin Jordaan (kerstin.jordaan@up.ac.za), and Sarah Post (spost@hawaii.edu).

Back issues of OP-SF NET can be obtained at the websites: https://staff.fnwi.uva.nl/t.h.koornwinder/opsfnet http://math.nist.gov/~DLozier/OPSFnet

SIAM-OPSF (OP-SF Talk), which was recently moved to a SIAM server, facilitates communication among members and friends of the Activity Group. To subscribe, go to http://lists.siam.org/mailman/listinfo/siam-OPSF and follow the instructions under the sub-heading "Subscribing to SIAM-OPSF". To contribute an item to the discussion, send email to siam-opsf@siam.org. The moderators are Bonita Saunders (bonita.saunders@nist.gov) and Diego Dominici (dominicd@newpaltz.edu).

SIAM has several categories of membership, including low-cost categories for students and residents of developing countries. In addition, there is the possibility of reduced rate membership for the members of several societies with which SIAM has a reciprocity agreement; see http://www.siam.org/membership/individual/reciprocal.php. For current information on SIAM and Activity Group membership, contact:

Society for Industrial and Applied Mathematics 3600 University City Science Center Philadelphia, PA 19104-2688 USA phone: +1-215-382-9800 e-mail: service@siam.org WWW : http://www.siam.org Topic #15 _____ OP - SF Net 23.5 _____ September 15, 2016

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, kerstin.jordaan@up.ac.za, or spost@hawaii.edu. Contributions to OP-SF NET 23.6 should be sent by November 1, 2016.

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 (2014-2016) are: Walter Van Assche, Chair Jeff Geronimo, Vice Chair Diego Dominici, Program Director Yuan Xu, Secretary The appointed officers are:

Howard Cohl, OP-SF NET co-editor Kerstin Jordaan, 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

"The fragile line between confidence and arrogance is humility."

Norman E. Bowie & Meg Schnieder, *Business Ethics for Dummies*, Wiley Publishing Inc, Indianapolis, Indiana, 2011.