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

http://math.nist.gov/opsf

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Topics:

Calendar of Events:

January 6-9, 2016

2016 Joint Mathematics Meetings, American Mathematical Society,
Washington State Convention Center, Seattle, Washington, USA

AMS Special Session on Special Functions and q-Series,
Organized by Richard Askey, Mourad E. H. Ismail, and Erik Koelink,
http://jointmathematicsmeetings.org/meetings/national/jmm2016/2181_program_ss31.html#title

AMS Special Session on Recent Advances in Orthogonal Polynomials and Special Functions,
Organized by Xiang-Sheng Wang,
http://jointmathematicsmeetings.org/meetings/national/jmm2016/2181_program_ss17.html#title

June 5-10, 2016

XII international Conference on Approximation and Optimization,
Havana University, Cuba
http://gama.uc3m.es/appopt

June 27 – July 1, 2016
Abecederian of SIDE (ASIDE) 12 Summer School,
Centre de Recherches mathématiques, Université de Montréal, Montréal, Quebec, Canada
http://www.crm.umontreal.ca/2016/ASIDE2016

July 3–9, 2016
Symmetries and Integrability of Difference Equations 12,
Hôtel Le Chanteclerc, Saint Adèle, Québec, Canada
http://www.crm.umontreal.ca/2016/SIDE12/index.php

July 11–15, 2016
OPSF–S6 Summer School on Orthogonal Polynomials and Special Functions,
Dedicated to the memory and legacy of Frank W. J. Olver,
Norbert Wiener Center for Harmonic Analysis and Applications,
University of Maryland, College Park, Maryland, USA
http://www.norbertwiener.umd.edu/Education/OPSFS6

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 10–19, 2017
Foundations of Computational Mathematics,
Barcelona, Spain
http://focm-society.org

Topic #1 ——— OP – SF Net 22.6 ——— November 15, 2015

From: Walter van Assche (Walter.VanAssche@wis.kuleuven.be)
Subject: Barry Simon receives the 2016 AMS Leroy P. Steele Prize

Barry Simon (California Institute of Technology) will receive the 2016 AMS Leroy P. Steele Prize for Lifetime Achievement for "his impact on the education and research of a generation of mathematical scientists through his significant research achievements, his highly influential books, and his mentoring of graduate students and postdoctoral fellows."

Barry Simon was already a well-known researcher in Mathematical and Theoretical Physics (his book "Methods of Modern Mathematical Physics," with Michael Reed from the 1970's is a classic) when he decided to dive into the field of orthogonal polynomials. He wrote a two-volume set "Orthogonal Polynomials on the Unit Circle" in 2005 in the same AMS book series where Szegő's book on "Orthogonal Polynomials" appeared, and this set became an instant classic. Another book of interest to OPSF people is "Szegő's Theorem and its Descendants: Spectral Theory for L^2 Perturbations of Orthogonal Polynomials" (Princeton University Press, 2011). Not only does Barry add very interesting work to OPSF, but he is

so energetic that he almost clears the field. Personally I must confess that he writes faster than I can read.

Previously Barry also received the Henri Poincaré Prize of the International Association of Mathematical Physics (2012) and the Bolyai Prize of the Hungarian Academy of Sciences (2015). The SIAG OPSF congratulates Barry for this new distinction and we are very proud to have you on our membership list. The prize will be awarded on Thursday, January 7, 2016, at the Joint Mathematics Meetings in Seattle.

See more at link and here.

Topic #2 ——— OP – SF Net 22.6 ——— November 15, 2015

From: Walter van Assche (Walter.VanAssche@wis.kuleuven.be)
Subject: Message from the Chair

The membership of our activity group is increasing and at the last count (October 2015) there were 173 members. See Figure 1 for the evolution of the number of members.

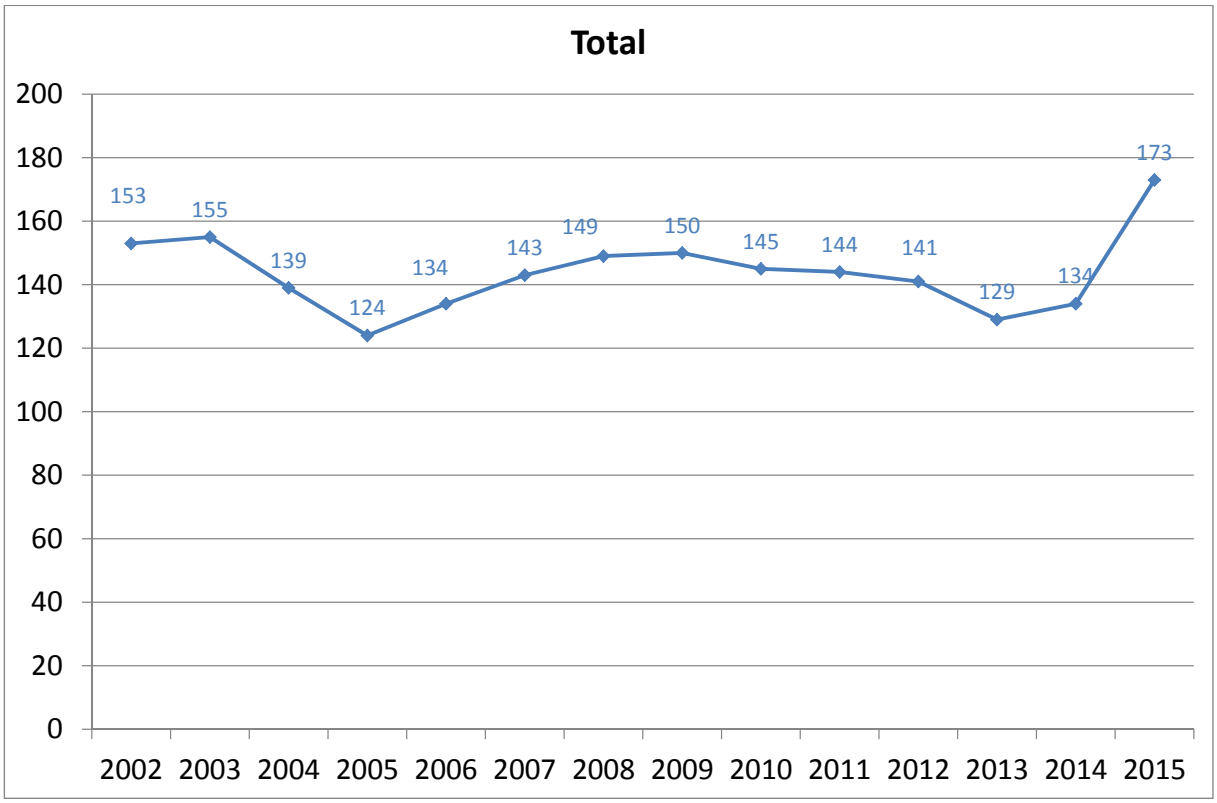

Figure 1: SIAM OPSFA membership

International members can join SIAM and the activity group through reciprocal membership, but unfortunately there are not so many reciprocal agreements: http://www.siam.org/membership/individual/reciprocal.php.

Students can join SIAM for free if their institution is an academic member of SIAM, if they are member of a student chapter of SIAM, or if they are nominated by a nonstudent mem-

ber of SIAM. They will be allowed to join the OPSF activity group for free and one more activity group of their choice: http://www.siam.org/students/memberships.php.

Some statistics about the distribution of the members: 16% are students, 84% are non-students; 80% are male and 20% are female; most members come from academic institutions (67%), others from government (12%) and industry (5%); 75% of the members come from mathematics departments, 6% from physics, 6% computer science and 8% from engineering; 56% of the membership is from outside the US, 44% are US members.

An interesting idea was launched by Dan Lozier to set aside royalties of books for the activity group, in particular for the Szegő Prize. The NIST Handbook of Mathematical Functions and the upcoming Askey-Bateman project are potential contributors. This is still under negotiation, however.

Some summer schools were announced, such as the OPSF-S6 summer school (see link) in 2016 (Norbert Wiener Center for Harmonic Analysis and Applications, University of Maryland), the OPSF-S7 summer school in 2017 (University of Kent, Canterbury), and the Gene Golub SIAM summer school in 2016 (Drexel University, see link). There is now a call of interest in organizing the Gene Golub SIAM summer school in 2017 (see link). The next OPSFA meeting (OPSFA-14, see link) will take place in 2017 at the University of Kent in Canterbury, UK, after the OPSF-S7 summer school.

Topic #3 ——— OP - SF Net 22.6 ——— November 15, 2015

From: Tom Koornwinder (T.H.Koornwinder@uva.nl)
Subject: Vilmos Totik appointed as AMS Fellow

Vilmos Totik (University of South Florida and the University of Szeged, Hungary) has become a Fellow of the AMS, in the 2016 Class "For contributions to classical analysis and approximation theory and for exposition." Vilmos was a plenary speaker at OPSFA-11 (Madrid, 2011).

See http://www.ams.org/profession/ams-fellows/new-fellows.

Topic #4 ——— OP - SF Net 22.6 ——— November 15, 2015

From: OP-SF Net Editors
Subject: Olga V. Holtz appointed as AMS Fellow

Olga V. Holtz (University of California, Berkeley) has become a Fellow of the AMS, in the 2016 Class "For contributions to numerical linear algebra, numerical analysis, approximation theory, theoretical computer science, and algebra." Olga was a plenary speaker at OPSFA-13 (Gaithersburg, 2015).

See http://www.ams.org/profession/ams-fellows/new-fellows.

Topic #5 ——— OP - SF Net 22.6 ——— November 15, 2015

From: Denise Wood (dmw@ams.org)
Subject: Announcement: *A Comprehensive Course in Analysis* by Barry Simon

The American Mathematical Society is pleased to announce the publication of *A Comprehensive Course in Analysis* by Henri Poincaré Prize and Leroy P. Steele Prize winner Barry Simon. The depth and breadth of this five-volume reference set covers almost all areas of classical analysis. The set can serve as a graduate-level analysis textbook and contains hundreds of problems, important historical background, and numerous notes. Researchers using analysis, professors teaching analysis at the graduate level, and graduate students who need any kind of analysis in their work will benefit from this set.

Part 1: Real Analysis
Part 2A: Basic Complex Analysis
Part 2B: Advanced Complex Analysis
Part 3: Harmonic Analysis
Part 4: Operator Theory

Read more at http://www.ams.org/bookstore-getitem/item=simon-set.

Topic #6 ——— OP - SF Net 22.6 ——— November 15, 2015

From: Guillermo Lopez Lagomasino (lago@math.uc3m.es)
Subject: Announcement: Conference in Havana

Next year in the period June 5- June 10 the XII the international Conference on Approximation and Optimization will take place in Havana University. The web page of the conference is http://gama.uc3m.es/appopt.

This conference is the twelfth of a series, dedicated to research on Approximation and Optimization. The first two meetings were held in Havana (Cuba) in 1987 and 1993. Since then, these meetings have been organized in the following countries of the Caribbean area: Puebla (México) 1995, Caracas (Venezuela) 1997, Pointe-à-Pitre (Guadeloupe) 1999, Guatemala City (Guatemala) 2001, León (Nicaragua) 2004, Santo Domingo (Republica Dominicana) 2006, San Andrés (Colombia) 2008, San Salvador (El Salvador) 2011, and Puebla (México) 2013.

The goal of these conferences is to support the development of high level research and education in the Caribbean. Included are: invited lectures, tutorials, mini-symposia, and contributed talks on the following topics:

Approximation: Wavelets, polynomial and rational approximation, splines, orthogonal polynomials, interpolation, asymptotic analysis, radial basis functions, numerical methods.

Optimization: Continuous and discrete optimization, parametric, stochastic and global optimization, nonlinear equations and inequalities, nonsmooth analysis, critical point theory, control theory.

Mathematical economics: Fixed point theory, equilibria of competitive economies, portfolio problems, cooperative and non-cooperative games.

Applications: Engineering and energy models, robotics, pattern recognition, image restoration, applications in biology, economy and science.

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 2015.

http://arxiv.org/abs/1509.00079
Factorization for Hardy spaces and characterization for BMO spaces via commutators in the Bessel setting
Xuan Thinh Duong, Ji Li, Brett D. Wick, Dongyong Yang

http://arxiv.org/abs/1509.00090
On the solvability of confluent Heun equation and associated orthogonal polynomials
Nasser Saad

http://arxiv.org/abs/1509.00819
Remark on the formula by Rakhmanov and Steklov's conjecture
S.A. Denisov

http://arxiv.org/abs/1509.00886
Certain Integrals Arising from Ramanujan's Notebooks
Bruce C. Berndt, Armin Straub

http://arxiv.org/abs/1509.00956
Sampling of real multivariate polynomials and pluripotential theory
Robert J. Berman, Joaquim Ortega-Cerdá

http://arxiv.org/abs/1509.01027
Maximal Meixner generalized generating functions and connection-type relations
Michael A. Baeder, Howard S. Cohl, Roberto S. Costas-Santos, Wenqing Xu

http://arxiv.org/abs/1509.01293
On the dimensions of oscillator-like algebras induced by orthogonal polynomials: non-symmetric case
G. Honnouvo, K. Thirulogasanthar

http://arxiv.org/abs/1509.01449
Decomposition of the Kostlan-Shub-Smale model for random polynomials
V. Gichev

http://arxiv.org/abs/1509.01716
On a generalization of a theorem of Levin and Stečkin and inequalities of the Hermite-Hadamard type
Teresa Rajba

http://arxiv.org/abs/1509.01725
On determinants of modified Bessel functions and entire solutions of double confluent Heun equations

Victor M. Buchstaber, Alexey A. Glutsyuk

http://arxiv.org/abs/1509.01960
A new construction of the Clifford-Fourier kernel
Denis Constales, Hendrik De Bie, Pan Lian

http://arxiv.org/abs/1509.02093
Invariant Gibbs measures for the 2-d defocusing nonlinear Schrödinger equations
Tadahiro Oh, Laurent Thomann

http://arxiv.org/abs/1509.02352
More on hypergeometric Levy processes
Emma L. Horton, Andreas E. Kyprianou

http://arxiv.org/abs/1509.02440
Wiener Tauberian theorem for hypergeometric transforms
Sanjoy Pusti, Amit Samanta

http://arxiv.org/abs/1509.02651
Approximations in Sobolev Spaces by Prolate Spheroidal Wave Functions
Aline Bonami, Abderrazek Karoui

http://arxiv.org/abs/1509.02764
New index transforms of the Lebedev- Skalskaya type
Semyon Yakubovich

http://arxiv.org/abs/1509.03343
Relative Asymptotics for General Orthogonal Polynomials
Brian Simanek

http://arxiv.org/abs/1509.04190
Two closed forms for the Apostol-Bernoulli polynomials
Su Hu, Min-Soo Kim

http://arxiv.org/abs/1509.04317
Kantorovich form of generalized Szasz-type operators with certain parameters using Charlier polynomials
Abdul Wafi, Nadeem Rao

http://arxiv.org/abs/1509.04433
Nonsymmetric Askey-Wilson polynomials and Q-polynomial distance-regular graphs
Jae-Ho Lee

http://arxiv.org/abs/1509.04542
Asymptotic zero distribution of Jacobi-Piñeiro and multiple Laguerre polynomials
Thorsten Neuschel, Walter Van Assche

http://arxiv.org/abs/1509.04807
Orthogonal polynomials, reproducing kernels, and zeros of optimal approximants
Catherine Bénéteau, Dmitry Khavinson, Constanze Liaw, Daniel Seco, Alan A. Sola

http://arxiv.org/abs/1509.04965
On the existence of finite critical trajectories of families of quadratic differentials
Faouzi Thabet

http://arxiv.org/abs/1509.05085
Weighted Orthogonal Polynomials-Based Generalization of Wirtinger-Type Integral Inequalities for Delayed Continuous-Time Systems
Xian Zhang, Yuanyuan Han, Yantao Wang, Cheng Gong

http://arxiv.org/abs/1509.05120
Normalized incomplete beta function: log-concavity in parameters and other properties
Dmitrii Karp

http://arxiv.org/abs/1509.05167
Computing the Kummer function $U(a, b, z)$ for small values of the arguments
A. Gil, J. Segura, N. M. Temme

http://arxiv.org/abs/1509.05202
Constructive Solutions to the Riemann–Hilbert Problem and Middle Convolution
Yulia Bibilo, Galina Filipuk

http://arxiv.org/abs/1509.05248
New Airy-type solutions of the ultradiscrete Painlevé II equation with parity variables
Hikaru Igarashi, Shin Isojima, Kouichi Takemura

http://arxiv.org/abs/1509.05331
Orthogonal polynomials for a class of measures with discrete rotational symmetries in the complex plane
Ferenc Balogh, Tamara Grava, Dario Merzi

http://arxiv.org/abs/1509.05873
On the existence of short trajectories of quadratic differentials related to generalized Jacobi polynomials with non real varying parameters
Mondher Chouikhi, Faouzi Thabet

http://arxiv.org/abs/1509.05829
The Padé interpolation method applied to q-Painlevé equations II (differential grid version)
Hidehito Nagao

http://arxiv.org/abs/1509.06143
Orthogonal vs. non-orthogonal reducibility of matrix-valued measures
Erik Koelink, Pablo Román

http://arxiv.org/abs/1509.06156
Decompositions for hypergeometric function H_A ,H_B ,H_C
Anvar H. Hasanov, Rakhila B. Seilkhanova, Roza D. Seilova

http://arxiv.org/abs/1509.06308
Evaluation of a Family of Bessel Function Integrals
Jeremiah Birrell

http://arxiv.org/abs/1509.06309
Estimates for certain integrals of products of six Bessel functions
Diogo Oliveira e Silva, Christoph Thiele

http://arxiv.org/abs/1509.06465
Some new properties of Confluent Hypergeometric Functions
Xu-Dan Luo, Wei-Chuan Lin

http://arxiv.org/abs/1509.06540
Symmetric moment problems and a conjecture of Valent
Christian Berg, Ryszard Szwarc

http://arxiv.org/abs/1509.06674
A sharp trilinear inequality related to Fourier restriction on the circle
Emanuel Carneiro, Damiano Foschi, Diogo Oliveira e Silva, Christoph Thiele

http://arxiv.org/abs/1509.06704
Critical measures for vector energy: global structure of trajectories of quadratic differentials
Andrei Martínez-Finkelshtein, Guilherme Silva

http://arxiv.org/abs/1509.06750
3D weak lensing with spin wavelets on the ball
Boris Leistedt, Jason D. McEwen, Thomas D. Kitching, Hiranya V. Peiris

http://arxiv.org/abs/1509.07008
Complex exceptional orthogonal polynomials and quasi-invariance
William A. Haese-Hill, Martin A. Hallnäs, Alexander P. Veselov

http://arxiv.org/abs/1509.07015
Hankel determinants for a singular complex weight and the first and third Painlevé transcendents
Shuai-Xia Xu, Dan Dai, Yu-Qiu Zhao

http://arxiv.org/abs/1509.07115
Orthogonal fast spherical Bessel transform on uniform grid
Vladislav V. Serov

http://arxiv.org/abs/1509.07391
Spacing properties of the zeros of orthogonal polynomials on Cantor sets via a sequence of polynomial mappings
Gökalp Alpan

http://arxiv.org/abs/1509.07419
Some dual definite integrals for Bessel functions
Howard S. Cohl, Sean J. Nair, Rebekah M. Palmer

http://arxiv.org/abs/1509.07624
Tensor calculus in polar coordinates using Jacobi polynomials
Geoffrey M. Vasil, Keaton J. Burns, Daniel Lecoanet, Sheehan Olver, Benjamin P. Brown, Jeffrey S. Oishi

http://arxiv.org/abs/1509.08186
Geometric Aspects of Painlevé Equations
Kenji Kajiwara, Masatoshi Noumi, Yasuhiko Yamada

http://arxiv.org/abs/1509.08213
Recurrence Relations of the Multi-Indexed Orthogonal Polynomials : III
Satoru Odake

http://arxiv.org/abs/1509.08235
On the Paley-Wiener theorem in the Mellin transform setting
Carlo Bardaro, Paul L. Butzer, Ilaria Mantellini, Gerhard Schmeisser

http://arxiv.org/abs/1509.08529
Fractional Laplace operator and Meijer G-function
Bartlomiej Dyda, Alexey Kuznetsov, Mateusz Kwaśnicki

http://arxiv.org/abs/1509.08533
Eigenvalues of the fractional Laplace operator in the unit ball
Bartomiej Dyda, Alexey Kuznetsov, Mateusz Kwaśnicki

http://arxiv.org/abs/1509.08723
Index transforms with the square of Bessel functions
Semyon Yakubovich

http://arxiv.org/abs/1509.08963
Integrals of Lipschitz-Hankel type, Legendre functions, and table errata
Robert S. Maier

http://arxiv.org/abs/1510.00025
Correlation functions of real zeros of random polynomials
Friedrich Götze, Dzianis Kaliada, Dmitry Zaporozhets

http://arxiv.org/abs/1510.00045
Weyl type asymptotics and bounds for the eigenvalues of functional-difference operators for mirror curves
Ari Laptev, Lukas Schimmer, Leon A. Takhtajan

http://arxiv.org/abs/1510.00185
Jacob's ladders, factorization and metamorphoses as an appendix to the Riemann functional equation for $\zeta(s)$ on the critical line
Jan Moser

http://arxiv.org/abs/1510.00192
A note on a modified Bessel function integral
R.B. Paris

http://arxiv.org/abs/1510.00323
Large n-limit for Random matrices with External Source with 3 eigenvalues
Jian Xu, Engui Fan, Yang Chen

http://arxiv.org/abs/1510.00335
Jacobi's epsilon and zeta function for moduli outside the interval $[0, 1]$
Milan Batista

http://arxiv.org/abs/1510.00406
Notes on the q-Analogues of the Natural Transforms and Some Further Applications
S. K. Q. Al-Omari, A. Kilicman

http://arxiv.org/abs/1510.01141
On the algebraicity of some products of special values of Barnes' multiple gamma function
Tomokazu Kashio

http://arxiv.org/abs/1510.01285
On the zeros of Confluent Hypergeometric Functions
Wei-Chuan Lin, Xu-Dan Luo

http://arxiv.org/abs/1510.01540
Confluence of hypergeometric functions and integrable hydrodynamic type systems
Y. Kodama, B. Konopelchenko

http://arxiv.org/abs/1510.01549
A Non-Sieving Application of the Euler Zeta Function
Michael P. May

http://arxiv.org/abs/1510.01897
Subdyadic square functions and applications to weighted harmonic analysis
David Beltran, Jonathan Bennett

http://arxiv.org/abs/1510.01901
Hankel determinants of zeta values
Alan Haynes, Wadim Zudilin

http://arxiv.org/abs/1510.02339
On asymptotic Gauss-Lucas theorem
R. Boegvad, D. Khavinson, B. Shapiro

http://arxiv.org/abs/1510.02570
Differential equations for discrete Jacobi-Sobolev orthogonal polynomials
Antonio J. Durán, Manuel D. de la Iglesia

http://arxiv.org/abs/1510.02575
Hypergeometric Functions over Finite Fields
Jenny Fuselier, Ling Long, Ravi Ramakrishna, Holly Swisher, Fang-Ting Tu

http://arxiv.org/abs/1510.02579
Exceptional Hahn and Jacobi orthogonal polynomials
Antonio J. Durán

http://arxiv.org/abs/1510.02584
Stabilization of the asymptotic expansions of the zeros of a partial theta function
Vladimir Kostov

http://arxiv.org/abs/1510.02923
On 1-Laplacian Elliptic Equations Modeling Magnetic Resonance Image Rician Denoising
Adrian Martin, Emanuele Schiavi, Sergio Segura de Leon

http://arxiv.org/abs/1510.02959
Estimates for approximations by Fourier sums, best approximations and best orthogonal trigonometric approximations of the classes of (ψ, β)-differentiable functions
A.S. Serdyuk, T.A. Stepaniuk

http://arxiv.org/abs/1510.02965
Derivative bounds for fractional maximal functions
Emanuel Carneiro, José Madrid

http://arxiv.org/abs/1510.03200
Sinc integrals and tiny numbers
Uwe Bäsel, Robert Baillie

http://arxiv.org/abs/1510.03265
On the Markov inequality in the L_2-norm with Gegenbauer weight
Alexei Shadrin, Geno Nikolov, Dragomir Aleksov

http://arxiv.org/abs/1510.03459
Some inequalities for the q-Extension of the Gamma Function
Kwara Nantomah, Edward Prempeh, Stephen Boakye Twum

http://arxiv.org/abs/1510.03772
A Generalized Freud Weight
Peter A. Clarkson, Kerstin Jordaan, Abey Kelil

http://arxiv.org/abs/1510.04359
The distribution of zeros of $\zeta\ (s)$ and gaps between zeros of $\zeta(s)$
Fan Ge

http://arxiv.org/abs/1510.04837
Generalized 3D Zernike functions for analytic construction of band-limited line-detecting wavelets
Augustus J.E.M. Janssen

http://arxiv.org/abs/1510.05017
Generations of monic polynomials such that the coefficients of the polynomials of the next generation coincide with the zeros of the polynomials of the current generation, and new solvable many-body problems
Oksana Bihun, Francesco Calogero

http://arxiv.org/abs/1510.05023
Combinatorics of the two-species ASEP and Koornwinder moments
Sylvie Corteel, Olya Mandelshtam, Lauren Williams

http://arxiv.org/abs/1510.05110
The asymptotics of the Struve function $\mathbf{H}_\nu(z)$ for large complex order and argument
R. B. Paris

http://arxiv.org/abs/1510.05322
The Weber equation as a normal form with applications to top of the barrier scattering
Rodica D. Costin, Hyejin Park, Wilhelm Schlag

http://arxiv.org/abs/1510.05575
A measure and orientation preserving homeomorphism of a cube with Jacobian equal -1 almost everywhere
Paweł Goldstein, Piotr Hajłasz

http://arxiv.org/abs/1510.05576
Optimization for Gaussian Processes via Chaining
Emile Contal, Cédric Malherbe, Nicolas Vayatis

http://arxiv.org/abs/1510.05770
Generalized Stieltjes transforms of some probability distributions
Nizar Demni

http://arxiv.org/abs/1510.06003
Root-counting measures of Jacobi polynomials and topological types and critical geodesics of related quadratic differentials
Boris Shapiro, Alexander Solynin

http://arxiv.org/abs/1510.06282
On an Inequality Related to a Certain Fourier Cosine Series
Wolfgang Gabcke

http://arxiv.org/abs/1510.06313
Order of Magnitude of Fourier Coefficients for Almost Periodic Functions
Alec Train, Rohit Jain, Will Carlson

http://arxiv.org/abs/1510.06333
Exploring Riemann's Functional Equation
Michael Milgram

http://arxiv.org/abs/1510.06420
Weighted energy problem on the unit sphere
Mykhailo Bilogliadov

http://arxiv.org/abs/1510.06435
Special function identities from superelliptic Kummer varieties
Adrian Clingher, Charles F. Doran, Andreas Malmendier

http://arxiv.org/abs/1510.06602
Uniform asymptotic behaviour of Jacobi-sn near a singular point. The Lost formula from handbooks for elliptic functions
Oleg Kiselev

http://arxiv.org/abs/1510.06692
On Scottish Book Problem 157
Kevin Beanland, Paul Humke, Trevor Richards

http://arxiv.org/abs/1510.07019
Dispersion Estimates for the Discrete Laguerre Operator
Aleksey Kostenko, Gerald Teschl

http://arxiv.org/abs/1510.07324
A generalized Kontsevich-Vishik trace for Fourier Integral Operators and the Laurent expansion of -functions
Tobias Hartung, Simon Scott

http://arxiv.org/abs/1510.07661
Hypergeometric Functions and Relations to Dwork Hypersurfaces
Heidi Goodson

http://arxiv.org/abs/1510.08599
Zeros of quasi-orthogonal Jacobi polynomials
Kathy Driver, Kerstin Jordaan

http://arxiv.org/abs/1510.08658
Dimension hopping and families of strictly positive definite zonal basis functions on spheres
R.K. Beatson, W. zu Castell

http://arxiv.org/abs/1510.08876
Feynman integral in $\mathbb{R}^1 \oplus \mathbb{R}^m$ and complex expansion of ${}_2F_1$
Mykola A. Shpot, Tibor K. Pogány

http://arxiv.org/abs/1510.09067
Laplace equations, conformal superintegrability and Bôcher contractions
E. Kalnins, W. Miller Jr, E. Subag

http://arxiv.org/abs/1510.09148
Lebedev's type index transforms with the modified Bessel functions
Semyon Yakubovich

Topic #8 ——— OP - SF Net 22.6 ——— November 15, 2015

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 Webmaster 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) and Kerstin Jordaan (kerstin.jordaan@up.ac.za).

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 or to see a link the archive of all messages, 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 e-mail 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:

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Topic #9 ——— OP - SF Net 22.6 ——— November 15, 2015

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 kerstin.jordaan@up.ac.za.
Contributions to OP-SF NET 23.1 should be sent by January 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
Diego Dominici, OP-SF Talk moderator
Bonita Saunders, Webmaster and OP-SF Talk moderator

Thought of the month

"The study of mathematics, like the Nile, begins in minuteness but ends in magnificence"

Charles Caleb Colton