O P-S F N E T – Volume 22, Number 2 – March 15, 2015

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

http://math.nist.gov/opsf

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Calendar of Events:

May 10–12, 2015
> International Conference on Orthogonal Polynomials and q-Series, celebrating the 70th birthday of Mourad Ismail, Orlando, Florida, USA
> http://math.cos.ucf.edu/opqs15/opqs2015.html

June 1–5, 2015
> 13th International Symposium on Orthogonal Polynomials, Special Functions and Applications (OPSFA13), NIST, Gaithersburg, Maryland, USA
> http://www.siam.org/meetings/opsfa13

June 7–11, 2015
> "Asymptotics in integrable systems, random matrices and random processes and universality", in honour of Percy Deift's 70th birthday, Centre de Recherches Mathématiques, Montreal, Canada
> http://www.crm.umontreal.ca/2015/Deift15/index_e.php

June 8–12, 2015

V Iberoamerican Workshop on Orthogonal Polynomials, Mexico City, Mexico
http://paginas.matem.unam.mx/eibpoa2015/index.php/en

June 10–13, 2015

AMS–EMS–SPM International meeting, with a special session on Orthogonal
Polynomials and Integrable Systems, Porto, Portugal
http://aep-math2015.spm.pt

June 15–18, 2015

Progress on Difference Equations, Covilhã, Portugal
http://www.pode2015.ubi.pt

August 9–14, 2015

Orthogonal and Multiple Orthogonal Polynomials, Oaxaca, Mexico
http://www.birs.ca/events/2015/5-day-workshops/15w5022

August 10–14, 2015

ICIAM 2015 (International Congress on Industrial and Applied Mathematics),
Beijing, China
http://www.iciam2015.cn

August 26–28, 2015

Symposium "The Real World is Complex" in honour of Christian Berg, in
Copenhagen, Denmark
http://www.math.ku.dk/∼henrikp/cb

September 28–30, 2015

International Conference on Analysis, Applications and Computations, in
memory of Lee Lorch, Fields Institute, Toronto, Canada
http://www.fields.utoronto.ca/programs/scientific/15-16/analysisapplications

July 11–15, 2016

OPSF–S6 Summer School on Orthogonal Polynomials and Special Functions,
American University, Washington D.C., USA
https://wis.kuleuven.be/events/OPSFA

Topic #1 ———— OP–SF Net 22.2 ———— March 15, 2015

From: Gábor Szegő prize selection committee
Subject: Official announcement of Gábor Szegő prize winner

The 2015 Gábor Szegő prize will be awarded to Karl Liechty of DePaul University in
Chicago for his original work in the asymptotic analysis of orthogonal polynomials aris-
ing in models from statistical mechanics, in particular the six-vertex model and a model
of non-intersecting random paths. Karl Liechty obtained his PhD in mathematics in 2010
from Indiana University-Purdue University Indianapolis where his PhD advisor was Pavel
Bleher. After his PhD he spent one semester at the Mathematical Sciences Research Insti-
tute (MSRI) in Berkeley and then was a postdoc for three and a half years at the University

of Michigan. In 2014 he joined the faculty at DePaul University and presently he is Assistant Professor in their Department of Mathematical Sciences. Karl Liechty was already nominated for the 2013 Gábor Szegő prize for the following papers:

1. P. Bleher, K. Liechty: Exact solution of the six-vertex model with domain wall boundary conditions. Ferroelectric phase, Comm. Math. Phys. **286** (2009), 77–801.

2. P. Bleher, K. Liechty: Exact solution of the six-vertex model with domain wall boundary conditions. Critical line between ferroelectric and disordered phases, J. Stat. Phys. **134** (2009), 463–485.

3. P. Bleher, K. Liechty: Exact solution of the six-vertex model with domain wall boundary conditions. Antiferroelectric phase, Comm. Pure Appl. Math. **63** (2010), 779–829.

4. K. Liechty: Nonintersecting Brownian motions on the half-line and discrete Gaussian orthogonal polynomials, J. Stat. Phys. **147** (2012), 582–622.

More recently he has written a book with Pavel Bleher on Random Matrices and the Six-Vertex Model (CRM Monograph Series, vol. 32, 2014, Amer. Math. Soc., Providence RI, 224 pp.). In these papers and in the book, essential and non-trivial use is made of orthogonal polynomials. These novel applications of orthogonal polynomials not only helped to solve important problems in statistical physics, but also gave deeper insight into the asymptotic behavior of orthogonal polynomials of various kinds. These contributions to the asymptotic theory of orthogonal polynomials are original and profound. The fact that the results are motivated by physical problems is vital for the development of the area of orthogonal polynomials and special functions.

The selection committee:

Walter Van Assche (chair)
Kerstin Jordaan
Charles Dunkl
Jeff Geronimo
Peter Clarkson

Topic #2 —— OP-SF Net 22.2 —— March 15, 2015

From: Vilmos Totik (totik@mail.usf.edu)
Subject: 2015 Bolyai Prize

Barry Simon is the recipient of the 2015 Bolyai Prize for his books "Orthogonal Polynomials on the Unit Circle, I,II." The prize, based on the recommendation of an international committee of 10 experts from all fields, is awarded by the Hungarian Academy of Sciences every 5 years for the most influential mathematics book written in the previous 15 years. Earlier recipients were: S. Shelah (2000), M. Gromov (2005) and Y. Manin (2010). Originally the prize was created honoring the 100th anniversary of the birth of János Bolyai as a substitute for the Nobel prize in mathematics, and the first two recipients were H. Poincare (1905) and D. Hilbert (1910). Then World War I came and the prize was not awarded for a long time, until it was renewed in 2000 with a somewhat different scope of recognition.

Congratulations to Barry!

From: Tom Koornwinder (T.H.Koornwinder@uva.nl)
Subject: A tribute to Martin Muldoon, editor of OP–SF NET for 19 years

The present issue of OP–SF NET is the first one since March 1996 (Volume 3, Number 2) which does not mention Martin Muldoon as an editor or co-editor. That means that he has taken care for 114 issues of this electronic newsletter during 19 years.

The SIAM Activity Group on Orthogonal Polynomials and Special Functions started in 1990. Initially it had only a printed Newsletter. After a few years it was supplemented by an electronic newsletter called OP–SF NET under my editorship. Volume 1, Number 1 appeared on December 22, 1993, followed by eight more numbers in 1994. From 1995 onward there has been in each year one volume consisting of six numbers appearing bimonthly. The numbers were sent to the subscribers by email. By the end of the first year there were 160 subscriptions.

Note that in 1994 we lived in the infant years of the World Wide Web. The first time a URL was mentioned in OP–SF NET was in Volume 1, Number 8, where I introduced an announcement by Daniel Loeb (then in Bordeaux) with the words:

> Daniel Loeb, who is working a.o. in umbral calculus related to special functions, writes us about his WWW (World Wide Web) home page, where he has gathered information about his research activities. Another example would be Doron Zeilberger's FTP directory, which can be approached by WWW ftp://ftp.math.temple.edu/pub/zeilberger. Here follows Daniel Loeb's announcement.

Afterwards the number of URL's mentioned in a number of OP–SF NET editions grew exponentially.

In Volume 3, Number 2 which appeared March 1996, Martin Muldoon was introduced as a co-editor of OP–SF NET. Starting with Volume 6, Number 1 (January 1999) he was the only editor. He remained so for seven years. In January 2006, Diego Dominici joined Martin as a co-editor. They were running OP–SF NET together until January 2015. Starting May 2007, OP–SF NET was upgraded from plain text to pdf format, which was sent to the subscribers as an email attachment. Occasionally there was even a photo included.

Martin has done his editorial work during all those years with great care and accuracy. With his great command of the English language, he has often made linguistic and stylish improvements in items contributed by non-native writers. When soon every mathematical activity had its own web page, just URL's instead of full texts were submitted as news items, by which Martin had to select and edit content from the web page for inclusion in OP–SF NET. He had to cope also with a shrinking supply of material, and fewer contributed conference reports than was the case in the early days.

A very valuable item in each number of OP–SF NET is the list of new preprints on orthogonal polynomials and special functions which has been posted on arXiv during the last two months. This also includes preprints posted in a category seemingly unrelated to our field. I always admired the editors that they were able to trace these. In the early days preprints in electronic form in our field were collected in an ftp archive unrelated to the official arXiv (then with URL http://xxx.lanl.gov/archive and dominated by physics). This ftp archive was started by Waleed Al-Salam and was continued after his death by

Hans Haubold in Vienna. In 1998, the preprints in Haubold's archive were moved to the Los Alamos xxx archive.

Thanks a lot to Martin and Diego and welcome to the new editors Kerstin Jordaan and Howard Cohl.

Topic #4 ——— OP-SF Net 22.2 ——— March 15, 2015

From: OP-SF NET Editors
Subject: Announcement: Orthogonal Polynomials of Several Variables, 2nd Edition

Orthogonal Polynomials of Several Variables, 2nd Edition

By: Charles F. Dunkl, University of Virginia and Yuan Xu, University of Oregon

PUBLISHED: August 2014 by Cambridge University Press
FORMAT: Hardback
ISBN: 9781107071896
$130 / £80
http://www.cambridge.org/9781107071896

Serving both as an introduction to the subject and as a reference, this book presents the theory in elegant form and with modern concepts and notation. It covers the general theory and emphasizes the classical types of orthogonal polynomials whose weight functions are supported on standard domains. The approach is a blend of classical analysis and symmetry group theoretic methods. Finite reflection groups are used to motivate and classify symmetries of weight functions and the associated polynomials. This revised edition has been updated throughout to reflect recent developments in the field. It contains 25% new material, including two brand new chapters on orthogonal polynomials in two variables, which will be especially useful for applications, and orthogonal polynomials on the unit sphere. As the most modern and complete treatment of the subject available, it will be useful to a wide audience of mathematicians and applied scientists, including physicists, chemists and engineers.

- Incorporates classical and modern approaches
- Gives enough background information for readers to understand and apply symmetry techniques
- Covers in detail the families of orthogonal polynomials for important weight functions

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Topic #5 ——— OP–SF Net 22.2 ——— March 15, 2015

From: Tom Koornwinder (T.H.Koornwinder@uva.nl)
Subject: The Heun Project

As I learnt recently, the following website has already been available for some time:

http://theheunproject.org

The website is about Heun functions, their generalizations and applications.

In particular, it has an extensive bibliography which is updated on a regular basis.

Topic #6 ——— OP–SF Net 22.2 ——— March 15, 2015

From: Tom Koornwinder (T.H.Koornwinder@uva.nl)
Subject: Memorial web photo album on Mizan Rahman

On the suggestion of George Gasper, I have made a photo album in memory of Mizan Rahman (1932–2015), available on

https://staff.fnwi.uva.nl/t.h.koornwinder/pictures/MizanRahman

Many photos are displayed, contributed by George Gasper, Michael Hoare, Erik Koelink, Gradimir Milovanović, Daniel Panario and myself. Other photos are taken from public web pages. At the end of the web page there is a Links section.

Further contributions of photos showing Mizan Rahman, for instance at conferences, remain welcome.

Topic #7 ——— OP–SF Net 22.2 ——— March 15, 2015

From: Howard Cohl (howard.cohl@nist.gov)
Subject: Announcement: OPSF–S6 Summer School July 11–15, 2016 in Washington D.C.

The OPSF–S6 summer school (an OPSFA event) will be held on July 11–15, 2016 at American University in Washington D.C. The most recent OPSF Summer School was held in Léganes, Spain in 2004. This OPSF summer school is being locally organized by Howard Cohl (NIST), Daniel Lozier (NIST), and Stephen Casey (American University). Mourad Ismail (University of Central Florida), with input from Erik Koelink (Radboud Universiteit Nijmegen), has graciously organized the lectures which will be as follows:

- Hjalmar Rosengren, **Elliptic Hypergeometric Functions**, Chalmers University of Technology and University of Gothenburg, Göteborg, Sweden;

- Jiang Zeng, **Combinatorics**, Institut Camille Jordan Université Claude Bernard Lyon-I, Villeurbanne, Lyon, France;

- Antonio Durán, **Exceptional Orthogonal Polynomials**, Departamento de Análisis Matemático, Universidad de Sevilla, Sevilla, Spain;

- Mourad Ismail, q-**Series**, Department of Mathematics, University of Central Florida, Orlando, Florida; and

- Erik Koelink, **Spectral Theory and Recent Developments**, Department of Mathematics, Radboud Universiteit Nijmegen, Nijmegen, The Netherlands.

Topic #8 —————— OP–SF Net 22.2 —————— March 15, 2015

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, mostly during January and February 2015.

http://arxiv.org/abs/1501.00138
Generalization of Lambert W–function, Bessel polynomials and transcendental equations
Giorgio Mugnaini

http://arxiv.org/abs/1501.00337
Application of uniform asymptotics to the connection formulas of the fifth Painlevé equation
Zhao–Yun Zeng, Yu–Qiu Zhao

http://arxiv.org/abs/1501.00685
A Poisson–Jacobi–type transformation for the sum $\sum_{n=1}^{\infty} n^{-2m} \exp(-an^2)$ for positive integer m
R. B. Paris

http://arxiv.org/abs/1501.00856
Could René Descartes have known this?
Jens Forsgard, Vladimir P. Kostov, Boris Shapiro

http://arxiv.org/abs/1501.02700
On the solution to a certain functional differential equation
Cheng Zhang

http://arxiv.org/abs/1501.03394
On conjectures by Csordas, Charalambides and Waleffe
Alexander Dyachenko, Galina van Bevern

http://arxiv.org/abs/1501.03655
The approximation of almost time and band limited functions by their expansion in some orthogonal polynomials bases
Philippe Jaming (IMB), Abderrazek Karoui, Susanna Spektor

http://arxiv.org/abs/1501.04609
New index transforms with the product of Bessel functions
Semyon Yakubovich

http://arxiv.org/abs/1501.04698
Spectral analysis for the exceptional X_m–Jacobi equation
Constanze Liaw, Lance Littlejohn, Jessica Stewart

http://arxiv.org/abs/1501.05672
An Electrostatic Interpretation of the Zeros of Paraorthogonal Polynomials on the Unit Circle
Brian Simanek

http://arxiv.org/abs/1501.05672
Markov–type inequalities and duality in weighted Sobolev spaces
Francisco Marcellán, Yamilet Quintana, José M. Rodríguez

http://arxiv.org/abs/1501.06268
The radius of convexity of normalized Bessel functions
Árpád Baricz, Róbert Szász

http://arxiv.org/abs/1501.07235
Monotonicity of zeros of polynomials orthogonal with respect to a discrete measure
Dimitar K. Dimitrov

http://arxiv.org/abs/1501.03108
A Dirac–Dunkl equation on S^2 and the Bannai–Ito algebra
Hendrik De Bie, Vincent X. Genest, Luc Vinet

http://arxiv.org/abs/1501.04475
Random matrix ensembles with singularities and a hierarchy of Painlevé III equations
Max R. Atkin, Tom Claeys, Francesco Mezzadri

http://arxiv.org/abs/1501.04812
The Painlevé III equation of type (0,0,4,–4), its associated vector bundles with isomonodromic connections, and the geometry of the movable poles
Martin A. Guest, Claus Hertling

http://arxiv.org/abs/1501.05602
The quantum superalgebra $\mathfrak{osp}_q(1|2)$ and a q–generalization of the Bannai–Ito polynomials
Vincent X. Genest, Luc Vinet, Alexei Zhedanov

http://arxiv.org/abs/1501.05824
The Real-rootedness of Eulerian Polynomials via the Hermite-Biehler Theorem
Arthur L.B. Yang, Philip B. Zhang

http://arxiv.org/abs/1501.01578
GammaCHI: a package for the inversion and computation of the gamma and chi-square cumulative distribution functions (central and noncentral)
A. Gil, J. Segura, N. M. Temme

http://arxiv.org/abs/1502.00102
An integral representation for the product of two parabolic cylinder functions having unrelated arguments
M.L. Glasser

http://arxiv.org/abs/1502.01202
Asymptotics of type I Hermite-Padé polynomials for semiclassical functions
Andrei Martínez-Finkelshtein, Evgenii A. Rakhmanov, Sergeiy P. Suetin

http://arxiv.org/abs/1502.02225
Sharp bounds for generalized elliptic integrals of the first kind
Wang Miao-Kun, Chu Yu-Ming, Qiu Song-Liang

http://arxiv.org/abs/1502.02379
Orthogonal expansions for generalized Gegenbauer weight function on the unit ball
Yuan Xu

http://arxiv.org/abs/1502.02877
Turán type inequalities for general Bessel functions
Árpád Baricz, Saminathan Ponnusamy, Sanjeev Singh

http://arxiv.org/abs/1502.03309
On the integral representations for Dunkl kernels of type A_2
Béchir Amri

http://arxiv.org/abs/1502.04201
The function $(\cosh \sqrt{at^2 + b})$ is exponentially convex
Victor Katsnelson

http://arxiv.org/abs/1502.04604
Discrete transforms and orthogonal polynomials of (anti)symmetric multivariate cosine functions
Jiří Hrivnák, Lenka Motlochová

http://arxiv.org/abs/1502.04605
On Bullen's and related inequalities
Ana Maria Acu, Heiner Gonska

http://arxiv.org/abs/1502.04606
More Properties of the Incomplete Gamma Functions
Rami AlAhmad

http://arxiv.org/abs/1502.05570
Entropies and the derivatives of some Heun functions
Ioan Rasa

http://arxiv.org/abs/1502.05971
On the order derivatives of Bessel functions
T. M. Dunster

http://arxiv.org/abs/1502.05996
Multiple sine, multiple elliptic gamma functions and rational cones
Luigi Tizzano, Jacob Winding

http://arxiv.org/abs/1502.06200
On an extension of extended Beta and hypergeometric functions
R. K. Parmar, P. Chopra, R. B. Paris

http://arxiv.org/abs/1502.06500
Sobolev Freud polynomials
Mohamed Bouali

http://arxiv.org/abs/1502.06507
Derivatives with respect to the order of the Legendre Polynomials
Bernard J. Laurenzi

http://arxiv.org/abs/1502.06695
Hermite-Pade approximation, isomonodromic deformation and hypergeometric integral
Toshiyuki Mano, Teruhisa Tsuda

http://arxiv.org/abs/1502.07256
Classes of Bivariate Orthogonal Polynomials
Mourad E. H. Ismail, Ruiming Zhang

http://arxiv.org/abs/1502.08013
Topics in special functions
Jairo A. Mendoza, Juan C. lopez, Rosalba Mendoza

http://arxiv.org/abs/1502.07805
On Hôpital-style rules for monotonicity and oscillation
Man Kam Kwong

http://arxiv.org/abs/1502.03402
Transition asymptotics for the Painlevé II transcendent
Thomas Bothner

http://arxiv.org/abs/1502.07293
A superintegrable discrete oscillator and two-variable Meixner polynomials
Julien Gaboriaud, Vincent X. Genest, Jessica Lemieux, Luc Vinet

http://arxiv.org/abs/1502.07191
Construction and implementation of asymptotic expansions for Jacobi-type orthogonal polynomials
Alfredo Deaño, Daan Huybrechs, Peter Opsomer

http://arxiv.org/abs/1502.08038
Orthogonal polynomials and deformed oscillators
V.V. Borzov, E.V. Damaskinsky

http://arxiv.org/abs/1502.08007
Reconstruction and location of fractional revivals of coherent state wave-packets for potentials associated with exceptional Xm Jacobi-polynomials
Sid-Ahmed Yahiaoui, Mustapha Bentaiba

http://arxiv.org/abs/1502.03085
On Higher Dimensional Interlacing Fibonacci Sequences, Continued Fractions and Chebyshev Polynomials
Mark W. Coffey, James L. Hindmarsh, Matthew C. Lettington, John Pryce

http://arxiv.org/abs/1501.04508
Orthogonal polynomials, Laguerre Fock space and quasi-classical asymptotics
S. Twareque Ali, Miroslav Englis

http://arxiv.org/abs/1412.8580
Weights with both absolutely continuous and discrete components: Asymptotics via the Riemann-Hilbert approach
Xiao-Bo Wu, Yu Lin, Shuai-Xia Xu, Yu-Qiu Zhao

http://arxiv.org/abs/1412.7597
The supercritical regime in the normal matrix model with cubic potential
Arno B.J. Kuijlaars, Alexander Tovbis

http://arxiv.org/abs/1412.3931
Multivariate Poisson-Charlier, Meixner and Hermite-Chebycheff polynomials and Lancaster distributions
Robert Griffiths

http://arxiv.org/abs/1411.7398
Properties of Tensor Hermite Polynomials
Parul Maheshwari, Gautam Mukhopadhyay, Siddhartha SenGupta

http://arxiv.org/abs/1411.2389
On Filter Banks and Wavelets Based on Chebyshev Polynomials
R. J. Cintra, H. M. de Oliveira, L. R. Soares

http://arxiv.org/abs/1411.2112
Wilson polynomials/functions and intertwining operators for the generic quantum superintegrable system on the 2-sphere
Willard Miller Jr, Qiushi Li

http://arxiv.org/abs/1410.1232
Time and Band Limiting for Matrix Valued Functions
Alberto Grünbaum, Inés Pacharoni, Ignacio Zurrián

http://arxiv.org/abs/1408.4698
Complexity analysis of hypergeometric orthogonal polynomials
J.S. Dehesa, A. Guerrero, P. Sánchez-Moreno

http://arxiv.org/abs/1407.8483
Six-vertex model with partial domain wall boundary conditions: ferroelectric phase
Pavel Bleher, Karl Liechty

http://arxiv.org/abs/1407.0217
The Nevanlinna parametrization for q-Lommel polynomials in the indeterminate case
F. Štampach, P. Šťovíček

http://arxiv.org/abs/1408.3708
On hypergeometric Bernoulli numbers and polynomials
Su Hu, Min-Soo Kim

http://arxiv.org/abs/1406.1628
Some transformation formulas associated with Askey-Wilson polynomials and Lassalle's formulas for Macdonald-Koornwinder polynomials
A. Hoshino, M. Noumi, J. Shiraishi

http://arxiv.org/abs/1405.4178
Zeros of a certain class of Gauss hypergeometric polynomials
Addisalem Abathun, Rikard Bogvad

http://arxiv.org/abs/1502/06903
The Development of a Hybrid Asymptotic Expansion for the Hardy Fuction Z(t), Consisting of Just [2*sqrt(2)-2]*sqrt(t/(2*pi)) Main Sum Terms, some 17% less than the celebrated Riemann-Siegel Formula
D. M. Lewis

http://arxiv.org/abs/1501.02618
Heat kernel estimates for the Bessel differential operator in half-line
Kamil Bogus, Jacek Malecki

http://arxiv.org/abs/1501.01652
A fast analysis-based discrete Hankel transform using asymptotic expansions
Alex Townsend

http://arxiv.org/abs/1501.00773
Elementary functions in Thermodynamic Bethe Ansatz
Junji Suzuki

http://arxiv.org/abs/1502.00406
On some mean value results for the zeta-function and a divisor problem II
Aleksandar Ivić, Wenguang Zhai

http://arxiv.org/abs/1501.05388
Completely monotonic gamma ratio and infinitely divisible H-function of Fox
Dmitrii Karp, Elena Prilepkina

http://arxiv.org/abs/1501.02535
The Langevin function and truncated exponential distributions
Grant Keady

http://arxiv.org/abs/1501.00895
New coherent states with Laguerre polynomials coefficients for the symmetric Poschl-Teller oscillator
Patrick Kayupe Kikodio, Zouhair Mouayn

http://arxiv.org/abs/1502.05150
The hypergeometric functions of the Faber-Zagier and Pixton relations
A. Buryak, F. Janda, R. Pandharipande

http://arxiv.org/abs/1502.02238
Nevanlinna theory of the Askey-Wilson divided difference operator
Yik-Man Chiang, Shaoji Feng

http://arxiv.org/abs/1502.01826
Monodromy representations of hypergeometric systems with respect to fundamental series solutions
Keiji Matsumoto

http://arxiv.org/abs/1502.00795
Pfaffian of Appell's hypergeometric system F_4 in terms of the intersection forms of twisted cohomology groups
Yoshiaki Goto, Jyoichi Kaneko, Keiji Matsumoto

http://arxiv.org/abs/1502.00334
Pfaffian of Lauricella's hypergeometric system F_A
Keiji Matsumoto

http://arxiv.org/abs/1502.00128
Structure relations and Darboux contractions for 2D 2nd order superintegrable systems
R. Heinonen, E. G. Kalnins, W. Miller, Jr., E. Subag

http://arxiv.org/abs/1501.06173
A derivation of two transformation formulas contiguous to that of Kummer's second theorem via a differential equation approach
S. Kodavanji, A. K. Rathie, R. B. Paris

http://arxiv.org/abs/1501.05205
The Stokes Phenomenon and some applications
Marius van der Put

http://arxiv.org/abs/1501.04668
An Improved Abramov–Petkovsek Reduction and Creative Telescoping for Hypergeometric Terms
Shaoshi Chen, Hui Huang, Manuel Kauers, Ziming Li

http://arxiv.org/abs/1501.03564
Hypergeometric series, truncated hypergeometric series, and Gaussian hypergeometric functions
Alyson Deines, Jenny G. Fuselier, Ling Long, Holly Swisher, Fang–Ting Tu

http://arxiv.org/abs/1501.02305
Distinct parts partitions without sequences
Kathrin Bringmann, Karl Mahlburg, Karthik Nataraj

Topic #9 ——— OP–SF Net 22.2 ——— March 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 115 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:

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 #10 ——— OP-SF Net 22.2 ——— March 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 22.3 should be sent by May 1, 2015.

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. 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

"Any intelligent fool can make things bigger and more complex... It takes a touch of genius – and a lot of courage to move in the opposite direction" by Albert Einstein