Topics:
1. Letter from the Chair
2. Conference on the occasion of Richard Askey's 80th birthday
3. San Diego Minisymposium on Special Functions: Applications and Numerical Aspects
4. Position for Special Functions Team Leader
5. Gelfand on special functions
6. New journal “Mathematics”
7. Book on Special Functions of Mathematical (Geo-)physics
8. Preprints in arXiv.org
9. About the Activity Group
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Calendar of Events:

March 24-29, 2013
12th International Symposium on Orthogonal Polynomials, Special Functions and Applications (OPSFA-12), Sousse, Tunisia
19.1, #2 19.3, #4 19.5 #1 19.6 #1
http://matematicas.uc3m.es/index.php/seminarios/intern-meet-menu/12th-opsfa

April 26-28, 2013
American Mathematical Society Spring Central Sectional Meeting, Ames, Iowa, USA including Special Session on Computational Advances on Special Functions and Tropical Geometry organized by Lubjana Beshaj and Emma Previato
http://www.ams.org/meetings-sectional/2195_program.html

May 20-24, 2013
International Conference on Approximation Theory and Applications, Hong Kong, China.
http://www6.cityu.edu.hk/ma/maicata
June 3-7, 2013
International Linear Algebra Society (ILAS) 2013 meeting, Providence
Rhode Island, USA, including an invited minisymposium on Matrices and
Orthogonal Polynomials organized by J.S. Geronimo, F. Marcellán and L.
Reichel
http://ilas2013.com

June 9-13, 2013
Tenth Advanced Course in Operator Theory and Complex Analysis,
Sevilla, Spain
http://congreso.us.es/ceacyto/2013/

June 12-15, 2013
The Third International Conference: Nonlinear Waves --- Theory and
Applications, Beijing, China
http://lsec.cc.ac.cn/~icnwta3/

June 18-21, 2013
International Conference on Quantum groups and quantum integrable
systems, Kiev, Ukraine
http://qgqis2013.bitp.kiev.ua/

July 1-5, 2013
The 6th Pacific RIM Conference on Mathematics, including Session on
"Special Functions and Orthogonal Polynomials", Sapporo City, Japan
19.5 #5
http://www.math.sci.hokudai.ac.jp/sympo/130701/sessions.html

July 1-5, 2013
Erdős Centennial Conference, Budapest, Hungary
http://www.renyi.hu/conferences/erdos100/

July 8-12, 2013
SIAM Annual Meeting, San Diego, California, USA (including “Orthogonal
Polynomials and Special Functions” as one of 17 themes and
Minisymposium “Orthogonal Polynomials and Special Functions"
Organized by Nico Temme, Amparo Gil and Javier Segura) 18.5 #3
20.2 #3
http://www.siam.org/meetings/an13/

July 8-12, 2013
Discrete Integrable Systems - A Follow-up Meeting
Isaac Newton Institute for Mathematical Sciences
8–12 July 2013
http://www.newton.ac.uk/programmes/DIS/diswa05
July 10-12, 2013
Special functions and special numbers (on the occasion of the 60th birthday of Frits Beukers), Utrecht, The Netherlands
http://www.staff.science.uu.nl/~corne102/beukers60/Conference.html

July 15-19, 2013
Workshop "Elliptic Integrable Systems and Hypergeometric Functions", Leiden, The Netherlands
www.lorentzcenter.nl/lc/web/2013/541/info.php3?wsid=541&venue=Oort

July 21-26, 2013
PODE Progress on Difference Equations, Bialystok, Poland
http://katmat.pb.bialystok.pl/pode13/

August 25-31, 2013
Formal and Analytic Solutions of Differential, Difference and Discrete Equations, Będlewo, Poland

September 21-27, 2013
Conference of Numerical Analysis and Applied Mathematics 2013 (ICNAAM 2013), in Rhodes, Greece
http://www.icnaam.org

October 23-24, 2013
Second International Conference of Mathematics and its Applications Basra City, Iraq
Contact: Ahmad Zainy Al-Yasry http://www.azainy.com/

December 6-7, 2013
Conference on the occasion of Richard Askey's 80th birthday, Madison, Wisconsin, USA.
http://www.math.umn.edu/~stanton/askey80

December 16-20, 2013
XXIVth International Workshop on Operator Theory and its Applications, Bangalore, India
http://math.iisc.ernet.in/~iwota2013/

Topic #1  ---------  OP-SF NET 20.2  ---------  March 15, 2013

From: Paco Marcellan  pacomarc@ing.uc3s.es
Subject: Letter from the Chair

1.- The Nominating Committee for the upcoming election of officers of our SIAG/OPSF will consist of:
The new officer election will take place this fall and the new officer term will be: January 1, 2014 – December 31, 2016.

In addition, this is the time for the SIAM Activity Group on Orthogonal Polynomials and Special Functions (OPSF) to apply for its charter renewal. The current charter extends to the end of 2013. The SIAM Council reviews and endorses proposals to renew activity groups and they have a standard form with a few questions they request the SIAG to answer. The SIAM Council must review the charter at their next meeting which will take place this July 2013 in San Diego, California. The deadline to finalize and submit charter renewal requests to the SIAM office is late May 2013.

For more information, please see
http://www.siam.org/activity/election.php
http://www.siam.org/activity/renewal.php

Paco Marcellán

Topic #2  ---------  OP-SF NET 20.2  ---------  March 15, 2013

From: Tom Koornwinder
Subject: Conference on the occasion of Richard Askey’s 80th birthday

First Announcement

To celebrate the occasion of Richard Askey's 80th birthday in 2013, a two-day conference will be organized in Dick’s honour on Friday and Saturday December 6-7, 2013 in his hometown, Madison, Wisconsin, USA.

The organizing committee consists of Tom Koornwinder, Dennis Stanton, Paul Terwilliger and Ole Warnaar.

The venue is the Pyle Center in Madison. All lectures will be by invitation. There is no registration fee. A banquet will be held on the evening of December 6. For this a contribution will be requested.

For further information, see the web page
http://www.math.umn.edu/~stanton/askey80
Topic #3  --------  OP-SF NET 20.2  --------  March 15, 2013

From: OP-SF NET Editors
Subject: San Diego Minisymposium on Special Functions: Applications and Numerical Aspects

Nico Temme, Amparo Gil and Javier Segura will organize a minisymposium "Special Functions: Applications and Numerical Aspects" during the 2013 SIAM Annual Meeting to be held in San Diego, California, USA during the period July 8-12, 2013. "Orthogonal Polynomials and Special Functions" is one of 17 themes of the meeting.

Topic #4  --------  OP-SF NET 20.2  --------  March 15, 2013

From: Daniel Lozier  daniel.lozier@nist.gov
Subject: Position for Special Functions Team Leader

The National Institute of Standards and Technology (NIST) (http://www.nist.gov/) anticipates an opening within the next 12 months for a Special Functions Team Leader. This is a position for a mid-career or exceptionally well-qualified junior mathematician. The principal duties involve the coordination and advancement of the NIST Digital Library of Mathematical Functions and related projects. In addition, ample time is provided for independent research in relevant mathematical areas.

NIST has a long history in special functions going back to the early tables that led up to the 1964 Handbook of Mathematical Functions (Abramowitz and Stegun, eds.), through the long subsequent period of development of special functions software, to the recent online release of the NIST Digital Library of Mathematical Functions (http://dlmf.nist.gov/) and coincident publication of the NIST Handbook of Mathematical Functions (Olver, Lozier, Boisvert and Clark, eds., Cambridge University Press, 2010).

The current special functions project team consists of NIST mathematicians together with NIST experts in information technology (IT), mathematical knowledge management, interactive 3D graphics of curves and surfaces, and scientific applications in physics and other areas. This team is augmented by respected mathematicians and scientists at universities and research institutions from around the world. Team leadership duties include responsibility to coordinate IT and math developments, including DLMF/Handbook content improvement, augmentation and correction arising from team members and the general scientific public; monitoring of errata reports and maintenance of a record of all corrections; online release of updated content; communication with
external publisher on sales, promotion, revised printings, and second and later editions; development and monitoring of external contracts for specific project tasks; and planning and promotion of a high-impact research agenda in special functions and mathematical knowledge management among team members.

Qualifications include an advanced degree (or equivalent experience) in mathematics with emphasis on classical real and complex analysis, numerical analysis and scientific computing; experience with numerical computing, symbolic computation, computer programming and advanced document processing of mathematics for print and online dissemination; strong written and oral communication skills; and participation in project work as the team leader or a team member with leadership potential. A research track record in theory, computation and application of special functions, together with solid participation and visibility in these areas, is highly desirable.

This anticipated position is within the Applied and Computational Mathematics Division (http://www.nist.gov/itl/math/) of the NIST Information Technology Laboratory. US citizenship is required. NIST is an equal-opportunity employer. For further information about employment at NIST, see http://www.nist.gov/hrmd/perks.cfm.

For more information contact Ronald Boisvert (boisvert@nist.gov) or Daniel Lozier (lozier@nist.gov).

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**Topic #5 ---- OP-SF NET 20.2 ---- March 15, 2013**

From: Tom Koornwinder  
Subject: Gelfand on special functions

Notices Amer. Math. Soc. recently had a two-part memorial for I.M. Gelfand. In the second installment, February 2013, http://www.ams.org/notices/201302/, Vladimir Retakh remembers how Gelfand brought him to hypergeometric functions:

"Well, you are doing some homological algebra but we already have Beilinson for that. If you are going to work with me, you have to start from scratch. In medieval times painter’s pupils worked for years just preparing paints for the master. Do you know what a hypergeometric function is? No? Very well, you can work with me on hypergeometric functions." After a few days Gelfand changed tactics. He asked me to open the celebrated handbook of Bateman and Erdelyi and point out the formulas I liked. He reacted to my choices quite positively: "Well, you have some taste. Why were you so interested in that abstract nonsense?"

[This was circulated to SIAM-OPSF (OP-SF Talk) – Eds.]
Topic #6  ------  OP-SF NET 20.2  ------  March 15, 2013

From: Sergei Suslov  sergei@asu.edu
Subject: New journal “Mathematics”

[Sergei is Editor-in-Chief of the journal. –Eds.]

The new journal Mathematics is an international, open access journal which provides an advanced forum for studies related to mathematical sciences. The scope of the journal presents a very broad vision of the nature of mathematics—from practical and experimental, or intuitive, vision (Vladimir I. Arnol’d) to a highly abstract one (the Bourbaki); from Aristotle's definition of mathematics as “the science of quantity” to “Mathematics is what mathematicians do!” Serious consideration will be given to high-quality reviews, original research papers and short communications in all areas of pure and applied mathematics which are of interest to many mathematicians and scientists. There is no restriction on the length of the papers and we encourage everyone to present a full account of their research so that the results can be understood, for example by advanced graduate students. The quality of the published articles will be assured by an efficient yet rigorous peer-review process. On behalf of the Editorial Board, I would like to extend a warm welcome to Mathematics’ contributors.

Respectfully, Sergei K. Suslov

More information is available at:
http://www.mdpi.com/journal/Mathematics/
http://www.mdpi.com/2227-7390/1/1/1

Topic #7  ------  OP-SF NET 20.2  ------  March 15, 2013

From: OP-SF NET Editors
Subject: Book on Special Functions of Mathematical (Geo-)physics

The following information about the book
W. Freeden and A M. Gutting,
Special functions of mathematical (geo-)physics, Birkhäuser, 2013
Is from the web site

- Presents special functions as essential tools contributing to solutions for geoscientific problems
- Attractive textbook for the education in geomathematics
- Addresses mathematicians, physicists, geo-engineers and geoscientists
Special functions enable us to formulate a scientific problem by reduction such that a new, more concrete problem can be attacked within a well-structured framework, usually in the context of differential equations. A good understanding of special functions provides the capacity to recognize the causality between the abstractness of the mathematical concept and both the impact on and cross-sectional importance to the scientific reality.

The special functions to be discussed in this monograph vary greatly, depending on the measurement parameters examined (gravitation, electric and magnetic fields, deformation, climate observables, fluid flow, etc.) and on the respective field characteristic (potential field, diffusion field, wave field). The differential equation under consideration determines the type of special functions that are needed in the desired reduction process.

Each chapter closes with exercises that reflect significant topics, mostly in computational applications. As a result, readers are not only directly confronted with the specific contents of each chapter, but also with additional knowledge on mathematical fields of research, where special functions are essential to application. All in all, the book is an equally valuable resource for education in geomathematics and the study of applied and harmonic analysis.

Students who wish to continue with further studies should consult the literature given as supplements for each topic covered in the exercises.

Content Level » Upper undergraduate

Keywords » Cauchy–Navier and Navier-Stokes equation - Laplace and Poisson equation - Maxwell equation - constructive approximation by function systems - spherically and periodically oriented functions - spheroidization and periodization

Topic #8  ---------  OP-SF NET 20.2  ---------  March 15, 2013

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 2013.

http://arxiv.org/abs/1302.0881
Using $D$-operators to construct orthogonal polynomials satisfying higher order difference or differential equations
Antonio J. Durán
Generalizations of generating functions for hypergeometric orthogonal polynomials with definite integrals
Howard S. Cohl, Connor MacKenzie, Hans Volkmer

Skew orthogonal polynomials for the real and quaternion real Ginibre ensembles and generalizations
Peter J. Forrester

Limit theorems for orthogonal polynomials related to circular ensembles
Joseph Najnudel, Ashkan Nikeghbali, Alain Rouault

Orthogonality of Macdonald Polynomials with Unitary Parameters
J. F. van Diejen, E. Emsiz

The generalized lognormal distribution and the Stieltjes moment problem
Christian Kleiber

The Nevi condition and a local law of large numbers for orthogonal polynomial ensembles
Jonathan Breuer, Maurice Duits

Non-commutative Painlevé equations and Hermite-type matrix orthogonal polynomials
Mattia Cafasso, Manuel D. de la Iglesia

Special functions and spectrum of Jacobi matrices
Frantisek Stampach, Pavel Stovicek

Orthogonal Polynomials on the Unit Circle with quasiperiodic Verblunsky Coefficients have generic purely singular continuous spectrum
Darren C. Ong

Hamiltonian dynamics of a quantum of space: hidden symmetries and spectrum of the volume operator, and discrete orthogonal polynomials
Vincenzo Aquilanti, Dimitri Marinelli, Annalisa Marzuoli

Solutions to discrete Painlevé systems arising from two types of orthogonal polynomials (I)
Nobutaka Nakazono
http://arxiv.org/abs/1301.2396
Recurrence coefficients for discrete orthonormal polynomials and the Painlevé equations
Peter A Clarkson

http://arxiv.org/abs/1302.1038
On the recurrence coefficients of generalized little $q$-Laguerre polynomials
Galina Filipuk, Christophe Smet

http://arxiv.org/abs/1302.1298
Vandermonde varieties and relations among Schur polynomials
Ralf Fröberg, Boris Shapiro

http://arxiv.org/abs/1302.1654
Multiple Hilbert transform associated with polynomials
Joonil Kim

http://arxiv.org/abs/1302.3115
An analytic approach to special numbers and polynomials
Grzegorz Rzadkowski

http://arxiv.org/abs/1302.3632
Vector-valued polynomials and a matrix weight function with $B_2$-action II
Charles F. Dunkl

http://arxiv.org/abs/1302.4894
Lacunary Generating Functions for Laguerre Polynomials
D. Babusci, G. Dattoli, K. Gorska, K. A. Penson

http://arxiv.org/abs/1302.5193
Global Asymptotics of Stieltjes-Wigert Polynomials
Roderick Wong, Yutian Li

http://arxiv.org/abs/1302.6196
Plancherel-Rotach asymptotic expansion for some polynomials from indeterminate moment problems
Dan Dai, Mourad E.H. Ismail, Xiang-Sheng Wang

http://arxiv.org/abs/1301.0138
Presentations of character varieties of 2-bridge knots using Chebyshev polynomials
Fumikazu Nagasato, Anh T. Tran

http://arxiv.org/abs/1301.0634
Asymptotics of symmetric polynomials with applications to statistical mechanics and representation theory
Vadim Gorin, Greta Panova
q-analogues of Ehrhart polynomials
Frédéric Chapoton (ICJ)

Limit laws of the coefficients of polynomials with only unit roots
Hsien-Kuei Hwang, Vytas Zacharovas

On $SL$-functions of certain exponential sums
Jun Zhang, Weiduan Feng

Polynomials with no zeros on a face of the bidisk
Jeffrey S. Geronimo, Plamen Iliev, Greg Knese

q-Fourier Transform: reconciling Hilhorst with Umarov-Tsallis-Steinberg
A. Plastino, M. C. Rocca

New identities for the partial Bell polynomials
Djurđe Cvijović

Strong and ratio asymptotics for Laguerre polynomials revisited
Alfredo Deaño, Edmundo J. Huertas, Francisco Marcellán

Real zeros of 2F1 hypergeometric polynomials
D. Dominici, S. J. Johnston, K. Jordaan

Explicit matrix inverses for lower triangular matrices with entries involving Gegenbauer polynomials
Tom H. Koornwinder

Asymptotics of Discrete Chebyshev Polynomials
J. H. Pan, Prof. Roderick Wong

The Coulomb problem on a 3-sphere and Heun polynomials
Stefano Bellucci, Vahagn Yeghikyan
The relationship between semi-classical Laguerre polynomials and the fourth Painlevé equation
Peter A. Clarkson, Kerstin Jordaan

A Class of Extended Hypergeometric Functions and Its Applications
Luo Minjie

A new approach to the epsilon expansion of generalized hypergeometric functions
David Greynat, Javier Sesma

Remark On Two Results due to Ramanujan on Hypergeometric Series
Medhat A. Rakha, Adel K. Ibrahim, Arjun K. Rathie

Hypergeometric solutions of the quantum differential equation of the cotangent bundle of a partial flag variety
V. Tarasov, A. Varchenko

On the definite integral of two confluent hypergeometric functions related to the Kampé de Fériet double series
Rytis Jursenas

Modular forms, hypergeometric functions and congruences
Matija Kazalicki

An Expansion Formula of Basic Hypergeometric Series via the (1-xy,y-x)--
Inversion with Applications
Xinrong Ma

Finite Gap Jacobi Matrices: A Review
Jacob S. Christiansen, Barry Simon, Maxim Zinchenko

Painlevé kernels in Hermitian matrix models
Maurice Duits

"Painleve 34" equation: equivalence test
Vera V. Kartak
http://arxiv.org/abs/1302.1832
How instanton combinatorics solves Painlevé VI, V and III's
O. Gamayun, N. Iorgov, O. Lisovyy

http://arxiv.org/abs/1301.7211
On an isomonodromy deformation equation without the Painlevé property
Boris Dubrovin, Andrei Kapaev

http://arxiv.org/abs/1302.3613
Euler-Mascheroni constant and gamma function near its singularities
Andrei Vieru

http://arxiv.org/abs/1301.1749
Inequalities and monotonicity properties for gamma and q-gamma functions
Mourad E. H. Ismail, Martin E. Muldoon

http://arxiv.org/abs/1302.4222
The radius of convexity of normalized Bessel functions of the first kind
Árpád Baricz, Róbert Szász

http://arxiv.org/abs/1302.4526
Hitting times of Bessel processes, volume of Wiener sausages and zeros of
Macdonald functions
Yuji Hamana, Hiroyuki Matsumoto

http://arxiv.org/abs/1302.1830
Three-dimensional Fourier transforms, integrals of spherical Bessel functions,
and novel delta function identities
Gregory S. Adkins

http://arxiv.org/abs/1301.5429
On a sum of modified Bessel functions
Árpád Baricz, Tibor K. Pogány

http://arxiv.org/abs/1302.5018
On simple zeros of the Riemann zeta-function
H. M. Bui, D. R. Heath-Brown

http://arxiv.org/abs/1302.5928
On the distribution of zeros of the derivative of Selberg's zeta function
associated to finite volume Riemann surfaces
Jay Jorgenson, Lejla Smajlovic

http://arxiv.org/abs/1302.1452
Statistical properties of zeta functions' zeros
Vladislav Kargin
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 130 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:

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 Diego Dominici (dominicd@newpaltz.edu) and Martin Muldoon (muldoon@yorku.ca).

Back issues of OP-SF NET can be obtained at the WWW addresses:
http://staff.science.uva.nl/~thk/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 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
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
http://www.siam.org/membership/outreachmem.htm

Topic #10 --------- OP-SF NET 20.2 --------- March 15, 2013

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 email to one of the OP-SF Editors
dominicd@newpaltz.edu or muldoon@yorku.ca.
Contributions to OP-SF NET 20.3 should be sent by May 1, 2013.

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 email to siam-opsf@siam.org.

WWW home page of this Activity Group:
Information on joining SIAM and this activity group: service@siam.org

The elected Officers of the Activity Group (2011-2013) are:
Chair: Francisco Marcellán
Vice Chair: Jeff Geronimo
Program Director: Diego Dominici
Secretary: Peter Clarkson
The appointed officers are:
Diego Dominici, OP-SF NET co-editor and OP-SF Talk moderator
Martin Muldoon, OP-SF NET co-editor
Bonita Saunders, Webmaster and OP-SF Talk moderator