O P - S F N E T - Volume 17, Number 6 – November 15, 2010

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Calendar of Events:

December 6-10, 2010
MSRI-Random Matrix Theory and its Applications II
Mathematical Sciences Research Institute, Berkeley, California
http://www.msri.org/calendar/workshops/WorkshopInfo/517/show_workshop

January 3-5, 2011
ICMS-2011, International Conference on Mathematical Sciences in honour of Professor
A. M. Mathai, Kottayam, Kerala, India   17.2 #10

January 6-9, 2011
Joint Mathematics Meetings, including (January 9) AMS Special Session on Asymptotic
Methods in Analysis with Applications, organized by Diego Dominici and Peter A.
McCoy, New Orleans LA, USA   17.6 #4
http://www.ams.org/meetings/national/jmm/2125_intro.html

February 1-5, 2011

RSME 100. Workshop on New Trends and Applications of Orthogonal Polynomials and Special Functions. Avila, Spain.
http://euler.us.es/~opap/opsf-rsme/

February 16-19, 2011

International Conference on Operator Theory, Monastir, Tunisia
http://www.lpm-fss.org/icot2011/

April 6-8, 2011

Special Functions in the 21st Century: Theory and Applications (dedicated to Frank W. J. Olver), Washington, DC, USA   17.6 #3
http://www.nist.gov/itl/math/SF21.cfm

April 6-8, 2011

Vicious Walkers and Random Matrices, École de Physique des Houches, French Alpes, May 16-27, 2011
http://www-fourier.ujf-grenoble.fr/~peche/Houches.html

May 17-21, 2011

International Symposium in Approximation Theory, Nashville, Tennessee, USA
http://www.math.vanderbilt.edu/~Nashville2011/

May 30- June 3, 2011

International Conference on Asymptotics and Special Functions, Hong Kong
http://www6.cityu.edu.hk/rcms/ICASF2011/index.html

June 5-11, 2011

Computational Complex Analysis and Approximation Theory (CCAAT 2011). in honor of Professor Nicolas Papamichael, Protaras, Cyprus
http://www.cyprusconferences.org/ccaat/

June 17-23, 2011

"Painlevé equations and related topics", St. Petersburg, Russia
http://www.pdmi.ras.ru/EIMI/2011/PC/index.html

July 3-9, 2011

22th International Workshop on Operator Theory and Applications, Universidad de Sevilla, Seville, Spain.
http://congreso.us.es/iwota2011/

July 4-14, 2011

Foundations of Computational Mathematics FOCM'11. Budapest, Hungary, including minisymposia on "Special Functions and Orthogonal Polynomials", "Asymptotic analysis and high oscillation" and "Approximation theory".
                                                                                17.4 #2

http://www.damtp.cam.ac.uk/user/na/FoCM11/

July 18-22, 2011
ICIAM 2011 - 7th International Congress on Industrial and Applied Mathematics, Vancouver, Canada (including minisymposium on "Painlevé equations")
http://www.iciam2011.com   17.6 #6

July 24-29, 2011
Complex Analysis, Operator and Approximation Theories, Conference dedicated to the memory of Franz Peherstorfer, Linz, Austria
http://www.caota2011.jku.at/

July 28-30, 2011
International Conference on Special Functions & their Applications (ICSFA 2011), (10th Annual Conference of SSFA), Jodhpur, India
http://www.ssfaindia.webs.com/conf.htm

August 8-13, 2011
"Formal and Analytic Solutions of Differential and Difference Equations", Bedlewo, Poland
http://www.impan.pl/~fasde/

August 15-19, 2011
Special Functions and Orthogonal Polynomials of Lie Groups and their Applications, Decin, Czech Republic, 15-19 August, 2011
http://www.imath.kiev.ua/~maryna/conf2011.html

August 29 – September 2, 2011
OPSFA-11: 11-th International Symposium on Orthogonal Polynomials, Special Functions and Applications, to celebrate Francisco (Paco) Marcellán´s 60-th birthday, Madrid, Spain   17.4 #1
http://gama.uc3m.es/opsfa11/

Topic #1   -----------   OP-SF NET 17.6 ---------- November 15, 2010

From: Tom Koornwinder   T.H.Koornwinder@uva.nl
Subject: Candidates for SIAG/OPSF board positions

Following the approval of the charter renewal application for the SIAM Activity Group on Orthogonal Polynomials and Special Functions (SIAG/OPSF) for the period 2011-2013 a new board has to be elected by the members of SIAG/OPSF. For the selection of candidates a Nominating Committee was appointed by SIAM consisting of Richard Askey, Charles Dunkl, Mourad Ismail and Tom Koornwinder (chair)

The four positions (with at least two candidates to run for each) that need to be filled are Chair, Vice Chair, Program Director, and Secretary. Information on these positions as well as job descriptions can be found at

Candidates must be member of SIAG/OPSF.

The nominating committee has proposed the following slate of candidates to the board of SIAM:

Chair: Francisco Marcellán, Willard Miller
Vice-Chair: Jeffrey S. Geronimo, Margit Roesler
Program Director: Boyka Aneva, Diego Dominici, Andrei Martinéz-Finkelshtein
Secretary: Peter Clarkson, Hans Volkmer

All candidates have agreed to stand for election. SIAG/OPSF members will soon be invited to vote.

Topic #2   -----------   OP-SF NET 17.6   ----------   November 15, 2010

From: Tom Koornwinder   T.H.Koornwinder@uva.nl
Subject: Gábor Szegő prize, call for nominations

[This item was circulated to the [SIAM-OPSF] list on October 22, 2010 – Eds.]

SIAM has created a new biannual prize, the Gábor Szegö Prize.
The SIAM Activity Group on Orthogonal Polynomials and Special Functions (SIAG/OPSF) awards the Gábor Szegö Prize every two years to an early-career researcher for outstanding research contributions, as determined by the prize committee, in the area of orthogonal polynomials and special functions. The contributions must be contained in a paper or papers published in English in peer-reviewed journals.

The prize can only be awarded to a researcher who has at most 10 years (full time equivalent) of involvement in mathematics since PhD at the award date.

A valid nomination requires a letter of nomination signed by two members of the SIAG and a CV of the nominee.

The award will be presented for the first time at the International Symposium on Orthogonal Polynomials, Special Functions, and Applications (OPSFA) in Madrid, August 2011. The award will consist of a plaque and a certificate containing the citation. As part of the award, the recipient will be invited to give a plenary lecture at the International Symposium on Orthogonal Polynomials, Special Functions, and Applications (OPSFA). Travel funds will be made available to reimburse the recipient for reasonable travel expenses incurred in attending the award ceremony and giving the talk. There is no cash award.

See further information about the prize on
http://www.siam.org/prizes/nominations/nom_siag_szego.php

The prize committee for the first prize consists of
Richard Askey
Kathy Driver
Tom Koornwinder
Francisco Marcellán (chair)
Roderick Wong
Nominations should be sent to Francisco Marcellán, Chair,
Gábor Szegő Prize Committee, c/o J.M. Littleton <littleton@siam.org>.

Topic #3   -----------   OP-SF NET 17.6   ----------   November 15, 2010

From: OP-SF NET Editors
Subject: Conference on Special Functions dedicated to Frank Olver

A conference "Special Functions in the 21st Century: Theory and Applications" will be held in Washington, DC during April 6-8, 2011.

Objectives. The conference will provide a forum for the exchange of expertise, experience and insights among world leaders in the subject of special functions. Participants will include expert authors, editors and validators of the recently published NIST Handbook of Mathematical Functions and Digital Library of Mathematical Functions (DLMF). It will also provide an opportunity for DLMF users to interact with its creators and to explore potential areas of fruitful future developments.

Special Recognition of Professor Frank W. J. Olver. This conference is dedicated to Professor Olver in light of his seminal contributions to the advancement of special functions, especially in the area of asymptotic analysis and as Mathematics Editor of the DLMF.

Plenary Speakers
Richard Askey, University of Wisconsin
Michael Berry, University of Bristol
Percy Deift, New York University
Leonard Maximon, George Washington University
William Reinhardt, University of Washington
Roderick Wong, City University of Hong Kong

Information on venue, contributed talks, registration, financial assistance, etc. will be available shortly at the conference web site:

http://www.nist.gov/itl/math/SF21.cfm

Organizing Committee.
Daniel Lozier, NIST, Gaithersburg, Maryland
Adri Olde Daalhuis, University of Edinburgh

Nico Temme, CWI, Amsterdam
Roderick Wong, City University of Hong Kong

Topic #4   -----------   OP-SF NET 17.6   ----------   November 15, 2010

From: OP-SF NET Editors
Subject: Program of AMS Special Session on Asymptotic Methods

During the Joint Mathematics Meetings in New Orleans, January 6-9, 2011, there will be a January 9 AMS Special Session on Asymptotic Methods in Analysis with Applications. The Organizers are **Diego Dominici**, State University of New York at New Paltz, and **Peter A. McCoy**, U.S. Naval Academy. The speakers (indicated by *) and titles are as follows:

- *Two Bessel Function Series in Ramanujan's Lost Notebook.*
  Bruce C. Berndt*, University of Illinois

- *Asymptotic Expansions of Certain Partial Theta Functions.*
  Bruce C. Berndt, University of Illinois
  Byungchan Kim*, Seoul National University of Science and Technology

- *The Asymptotic Hadamard Conjecture.*
  E. Rodney Canfield*, Dept. of Computer Science, Univ. of Georgia

- *Γ-convergence of Power-Law Functionals and Applications to Polycrystal Plasticity.*
  Cristina Popovici*, North Dakota State University

- *Densities of short uniform random walks.*
  Jonathan M Borwein*, CARMA, University of Newcastle NSW Australia
  Armin Straub, Tulane University
  James Wan, CARMA
  Wadim Zudilin, CARMA

- *Asymptotic Analysis of Dynamic Storage Allocation Models.*
  Charles Knessl*, University of Illinois at Chicago
  Sohn Eunju, University of Georgia

- *Application of special functions to disparate fields.*
  Roger W. Barnard*, Texas Tech University, Lubbock, TX

- *Asymptotic p-adic methods.*
  Erin Beyerstedt, Tulane University
  Victor H. Moll, Tulane University
  Xinyu Sun*, Xavier University of Louisiana

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- *Character analogues of Ramanujan type integrals involving the Riemann Ξ-function.*
  Atul Abhay Dixit*, University of Illinois at Urbana-Champaign

- *An effective asymptotic formula for the Stieltjes constants.*
  Mark W. Coffey*, Colorado School of Mines

- *Asymptotics and Zeros for Partition Statistics Polynomials.*
  Robert P. Boyer*, Drexel University
  William M. Y. Goh, Department of Statistics and Finance, University of Science and Technology of China
  Daniel T. Parry, Drexel University

- *Asymptotic analysis of the linearized Navier-Stokes equations in a general domain.*
  Gung-Min Gie*, University of California, Riverside
  Makram Hamouda, Institute for Scientific Computing and Applied Mathematics, Indiana University
  Roger Temam, Institute for Scientific Computing and Applied Mathematics, Indiana University

- *The Diffusion Phenomenon and Decay Rates for Hyperbolic Equations with Damping.*
  Petronela Radu*, University of Nebraska-Lincoln
  Grozdena Todorova, University of Tennessee-Knoxville
  Borislav Yordanov, University of Tennessee-Knoxville

- *Asymptotic Models of the Nonlinear Adaptive Orthotropic Elastic Rod and Plate.*
  Robert J Ronkese*, United States Military Academy at West Point

- *Asymptotic Laplace Transforms and Watson's Lemma .*
  Claudiu Mihai*, Daemen College

- *Asymptotic Expansions Of Solutions Of An Inhomogeneous Equation.*
  Xinfu Chen, University Of Pittsburgh
  Susmita Sadhu*, University Of Pittsburgh

Topic #5   -----------   OP-SF NET 17.6   ----------   November 15, 2010

From: OP-SF NET Editors
Subject: Hong Kong Conference on Asymptotics and Special Functions

Event Title: International Conference on Asymptotics and Special Functions
Dates: 30 May - 03 June, 2011
Location: City University of Hong Kong, Hong Kong
Website: http://www6.cityu.edu.hk/rcms/ICASF2011/index.html

 Plenary Speakers:

 1) George ANDREWS The Pennsylvania State University, USA

 2) Richard ASKEY University of Wisconsin-Madison, USA

 3) Jacob CHRISTIANSEN University of Copenhagen, Denmark

 4) Philippe FLAJOLET INRIA-Rocquencourt, France

 5) Alberto GRUNBAUM University of California (Berkeley), USA

 6) Nalini JOSHI The University of Sydney, Australia

 7) Rupert LASSER Münich University of Technology, Germany

 8) Frank NIJHOFF University of Leeds, UK

 9) Jean-Pierre RAMIS Université Paul Sabatier, France

10) Nico TEMME National Research Center for Mathematics and Computer
 Science, The Netherlands

Description: Special functions is a very classic subject which together with their
asymptotics has many connections to various areas of Pure and Applied
Mathematics. Since the 1980's, special functions, orthogonal polynomials and
their asymptotics have seen tremendous developments. Many new areas evolved
such as the combinatorial theory of orthogonal polynomials, special functions on
root systems, several variable and matrix valued special functions, uniform
asymptotics, and the application of Riemann-Hilbert techniques to orthogonal
polynomials.

The conference will bring together researchers with diverse backgrounds
whose research interests overlap with special functions and orthogonal
polynomials; and their asymptotics. The speakers will report on the state
of the art in these areas and we expect the presence of such talent in one
place will lead to significant developments.

The program will also contain some symbolic algebra presentations.

Topic #6 ----------- OP-SF NET 17.6 ---------- November 15, 2010

From: Peter Clarkson P.A.Clarkson@kent.ac.uk
Subject: Minisymposium "Painlevé equations", ICIAM 2011, Vancouver

The program of ICIAM 2011 (International Congress on Industrial and Applied Mathematics), to be held in Vancouver, Canada, July 18-22, 2011 will include a Minisymposium on "Painlevé equations" organized by Peter Clarkson, University of Kent, UK and Beatrice Pelloni, University of Reading, UK.

Description: The Painlevé equations, discovered about a hundred years ago, are special amongst nonlinear ordinary differential equations in that they are "integrable" due to their representation as Riemann- Hilbert problems. Further they are nonlinear analogues of the classical special functions and have a plethora of remarkable properties. However, little is known about the numerical solution of the Painlevé equations due to the nonlinearity. An important question is how properties of the Painlevé equations, in particular their representation as Riemann-Hilbert problems, can be used in the development of their numerical solution. Talks in the mini-symposium will discuss various perspectives of the Painlevé equations.

Part I
"Painlevé Equations - Nonlinear Special Functions"
Peter Clarkson, University of Kent, United Kingdom

"Global Analysis of Nonlinear ODEs, the Painlevé Property and Connection Problems"
Ovidiu Costin, Rutgers University

"Integrability and Geometry for the Painlevé Equations"
Nalini Joshi, University of Sydney, Australia

Part II
"Fredholm Determinant Perspective on the Numerical Solution of Painlevé Equations"
Folkmar Bornemann, Technische Universität München, Germany

"Critical Semiclassical Asymptotics for Fluxon Condensates in the Sine-Gordon Equation: Rational Solutions of PII and Grazing Kink Collisions"
Peter D. Miller, University of Michigan, Ann Arbor

"Numerical Solution of Riemann–Hilbert Problems"
Sheehan Olver, Oxford University, United Kingdom

"Numerical Methods for Painlevé Equations"
Andre Weideman, University of Stellenbosch, South Africa

Part III
"Singular Normal Form for the Painlevé Equation P1"
Rodica Costin, Ohio State University

"Discrete Painlevé Equations and the Self-dual Yang-Mills Equations"
Rod Halburd, University College London, United Kingdom

"Dissipationless Shocks and Painlevé Equations"
Christian Klein, Institut de Mathématiques de Bourgogne, France

"Painlevé Transcendents and Critical Behavior of the Large Toeplitz and Hankel Determinants"
Alexander R. Its, Indiana University and Purdue University

The ICIAM web site is:

http://www.iciam2011.com/index.php

Topic #7 ----------- OP-SF NET 17.6 ---------- November 15, 2010

From: Rajendra Yadav rkmdyadav@gmail.com
Subject: ICSFA 2011: First Announcement

International Conference on Special Functions & their Applications - ICSFA 2011

10th Annual Conference of the Society for Special Functions & their Applications

We are happy to announce that Tenth Annual Conference of SSFA (International Conference on Special Functions & their Applications) is scheduled to be held at J. N. Vyas University, Jodhpur (Rajasthan), India during July 28-30, 2011.

The first "R. P. Agarwal Memorial Lecture" will be held on the first day of the Conference. Prof. George E. Andrews, Penn State University, USA has kindly consented to deliver the Lecture.

The Organizers of the Conference have great pleasure in extending an invitation to those interested to participate in ICSFA 2011 and call for papers for presentation.

We humbly request you to kindly circulate this information among your friends, colleagues and research scholars of the your Departments.

For further details, kindly contact:

Dr. R. K. Yadav
Organizing Secretary, ICSFA2011
Department of Mathematics & Statistics

J. N. Vyas University
Jodhpur (Rajasthan) 342 005, India
Email: rkmdyadav@gmail.com
Tel.: +91 291 2723261
         9413062436

The Conference details will be available on the Society's website
http://www.ssfaindia.webs.com

We look forward to see you at ICSFA 2011.

S. Ahmad Ali
Assistant Secretary, SSFA

Topic #8   -----------   OP-SF NET 17.6   ----------   November 15, 2010

From: OP-SF NET Editors
Subject: Philip Davis on the NIST Handbook

Under the title "Formulas Galore", Philip Davis reviews the NIST Handbook of Mathematical
Functions in SIAM News, vol 43, No 7, September 2010, p. 8.
Read the review at
http://www.siam.org/news/news.php?id=1811

Topic #9   -----------   OP-SF NET 17.6   ----------   November 15, 2010

From: Kai Diethelm diethelm@gns-mbh.com
Subject: Book on Fractional Differential Equations

Author: Kai Dietholm
The Analysis of Fractional Differential Equations - An application-oriented
exposition using differential operators of Caputo type
Lecture Notes in Mathematics, vol 2004
Springer, Berlin, 2010.
viii, 247 pp.
ISBN 978-3-642-14573-5.
EUR 44.95 / CHF 64.50 / USD 59.95 / GBP 40.99
http://www.springer.com/mathematics/dynamical+systems/book/978-3-642-
14573-5

Fractional calculus was first developed by pure mathematicians in the middle of the
19th century. Some 100 years later, engineers and physicists have found
applications for these concepts in their areas. However there has traditionally been
little interaction between these two communities. In particular, typical mathematical

works provide extensive findings on aspects with comparatively little significance in applications, and the engineering literature often lacks mathematical detail and precision. This book bridges the gap between the two communities. It concentrates on the class of fractional derivatives most important in applications, the Caputo operators, and provides a self-contained, thorough and mathematically rigorous study of their properties and of the corresponding differential equations. The text is a useful tool for mathematicians and researchers from the applied sciences alike. It can also be used as a basis for teaching graduate courses on fractional differential equations.

MSC 2010: 34A08; 34A12; 34-02; 34-01; 26A33; 33E12
Key words: Mittag-Leffler functions; existence, uniqueness and stability of solutions; fractional derivative of Caputo type; fractional differential equation; single- and multi-term differential equations

Table of contents:

Topic #10   -----------   OP-SF NET 17.6   ----------   November 15, 2010

From: Daniel B. Szyld   szyld@temple.edu
Subject: Call for Proposals: Gene Golub SIAM Summer School 2012

SIAM is calling for letters of intent for possible proposals of topics and organizers for the Gene Golub SIAM Summer School (G2S3) for approximately 50 graduate students for two weeks during the summer of 2012. SIAM has budgeted US$50,000 towards G2S3 2012.

Information about the G2S3 program can be found at
http://www.siam.org/about/com_golub.php

and about the G2S3 2011 at
http://www.siam.org/students/summer.php
and the G2S3 2010 at
http://www.siam.org/students/summer_archive.php

Letters of intent should include the names of the organizers and a summary of any previous organizing experience; a proposed title for the summer school; tentative course topics and lecturers (indicating whether these people have already been contacted); possible sources for additional funding, if needed; (optional) preliminary budget. No registration fee shall be charged to the students, and the bulk of the funds shall be budgeted for students' expenses. The dates of the summer school should not overlap the dates of the SIAM Annual Meeting, July 9-13, 2012.

The topic of the school is open to any area of applied mathematics, computational science, and industrial mathematics. Numerical Linear Algebra was the topic of 2010, and is expected to be the topic of 2013, and so preference will be given to other themes that have a computational component. The courses are expected to be at the research level and cover topics not usually found in regular university courses.

The organizers who are awarded the right to organize G2S3 2012 will be responsible for selecting the site, handling all local arrangements, inviting and confirming the lecturers, setting the schedule, working with SIAM to solicit applications from students, evaluating the applications and notifying applicants of the outcome. They will be working with SIAM to ensure that the allocated budget is not exceeded, and to ensure that the appropriate local arrangements are made in a timely fashion, that the necessary information is available on the web when needed, and that all participants are kept appropriately informed about arrangements.

Letters of intent should be sent to Linda Thiel, thiel@siam.org, preferably in pdf format no later than January 31, 2011. Full proposals will be due on March 31, 2011. For questions or informal inquiries, please contact the G2S3 committee chair, Daniel Szyld, szyld@temple.edu, +1.215.204.7288.

Topic #11   -----------   OP-SF NET 17.6   ----------   November 15, 2010

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 September and October 2010.

http://arxiv.org/abs/1009.0466
Asymptotics of multiple orthogonal polynomials for a system of two measures supported on a starlike set
Authors: Abey López García

http://arxiv.org/abs/1009.1203
Orthogonality Relations for Multivariate Krawtchouk Polynomials
Authors: Hiroshi Mizukawa

http://arxiv.org/abs/1009.1637
Asymptotics of orthogonal polynomials and point perturbation on the unit circle
Authors: Manwah Lilian Wong

http://arxiv.org/abs/1009.3066
The limiting Kac random polynomial and truncated random orthogonal matrices
Authors: Peter J. Forrester

http://arxiv.org/abs/1009.4943
Primitive orthogonal idempotents for R-trivial monoids
Authors: Chris Berg, Nantel Bergeron, Sandeep Bhargava, Franco Saliola

http://arxiv.org/abs/1009.5472
Noncommutative Biorthogonal Polynomials
Authors: Emily Sergel

http://arxiv.org/abs/1010.3348
The generalized Marcum $Q-$function: an orthogonal polynomial approach
Authors: Szilárd András, Árpád Baricz, Yin Sun

http://arxiv.org/abs/1010.3540
Jacob's ladders and new orthogonal systems generated by Jacobi polynomials
Authors: Jan Moser

http://arxiv.org/abs/1009.3971
Primitive prime divisors in zero orbits of polynomials
Authors: Kevin Doerksen, Anna Haensch

http://arxiv.org/abs/1009.4482
A Pieri formula for Macdonald's spherical functions and polynomials
Authors: J. F. van Diejen, E. Emsiz

http://arxiv.org/abs/1009.5142
Large deviations for zeros of $P(\phi)_2$ random polynomials
Authors: Renjie Feng, Steve Zelditch

http://arxiv.org/abs/1009.6022
Arguments of zeros of highly log concave polynomials
Authors: David Handelman

http://arxiv.org/abs/1009.0289
Direct spreading measures of Laguerre polynomials
Authors: P. Sánchez-Moreno, D. Manzano, J.S. Dehesa

http://arxiv.org/abs/1009.2373
Roots of polynomials of degrees 3 and 4
Authors: Svante Janson

http://arxiv.org/abs/1009.2396
Probabilistic Representation of Bernoulli, Euler and Carlitz Hermite Polynomials
Authors: C. Vignat

http://arxiv.org/abs/1009.2447
Average characteristic polynomials in the two-matrix model
Authors: Steven Delvaux

http://arxiv.org/abs/1009.2929
Congruences on the Bell polynomials and the derangement polynomials
Authors: Yidong Sun, Xiaojuan Wu, Jujuan Zhuang

http://arxiv.org/abs/1010.2176
Faber polynomials and Poincaré series
Authors: Ben Kane

http://arxiv.org/abs/1010.3711
Construction a new generating function of Bernstein type polynomials
Authors: Yilmaz Simsek

http://arxiv.org/abs/1010.3873
Chebyshev polynomials on symmetric matrices
Authors: Karin Erdmann, Sibylle Schroll

http://arxiv.org/abs/1010.4047
From quantum Schubert polynomials to k-Schur functions via the Toda lattice
Authors: Thomas Lam, Mark Shimozono

http://arxiv.org/abs/1010.5167
Borcea's variance conjectures on the critical points of polynomials
Authors: Dmitry Khavinson, Rajesh Pereira, Mihai Putinar, Edward B. Saff, Serguei Shimorin

http://arxiv.org/abs/1010.5769
MacMahon's sum-of-divisors functions, Chebyshev polynomials, and Quasi-modular forms
Authors: George E. Andrews, Simon CF Rose

http://arxiv.org/abs/1010.5934
Touchard like polynomials and generalized Stirling numbers
Authors: G. Dattoli, B. Germano, M.R. Martinelli, P.E. Ricci

http://arxiv.org/abs/1010.0416
2-Log-concavity of the Boros-Moll Polynomials
Authors: William Y. C. Chen, Ernest X. W. Xia

http://arxiv.org/abs/1010.0421
Nonstandard braid relations and Chebyshev polynomials
Authors: Jonah Blasiak

http://arxiv.org/abs/1010.0722
A Littlewood-Richardson rule for Macdonald polynomials
Authors: Martha Yip

http://arxiv.org/abs/1009.2004
A q-analogue of Catalan Hankel determinants
Authors: Masao Ishikawa, Hiroyuki Tagawa, Jiang Zeng

http://arxiv.org/abs/1010.3348
The generalized Marcum $Q-$function: an orthogonal polynomial approach
Authors: Szilárd András, Árpád Baricz, Yin Sun

http://arxiv.org/abs/1010.6119
A q-analog of the Fibonacci numbers via complete quadrics
Authors: Mahir Bilen Can, Michael Joyce

http://arxiv.org/abs/1009.2399
The Evaluation of a Quartic Integral via Schwinger, Schur and Bessel
Authors: Tewodros Amdeberhan, Victor H. Moll, And Christophe Vignat

http://arxiv.org/abs/1009.4814
Functional inequalities for modified Bessel functions
Authors: Árpád Baricz, Saminathan Ponnusamy, Matti Vuorinen

http://arxiv.org/abs/1010.3346
On Turán type inequalities for modified Bessel functions
Authors: Árpád Baricz, Saminathan Ponnusamy

http://arxiv.org/abs/1010.3623
A new class of sum rules for products of Bessel functions
Authors: G. Bevilacqua, V. Biancalana, Y. Dancheva, L. Moi

http://arxiv.org/abs/1010.4320
Elementary Evaluation of the Zeta and Related Functions
Authors: Armen Bagdasaryan

http://arxiv.org/abs/1010.5033
Bernoulli Operator and Riemann's Zeta Function
Authors: Yiping Yu

http://arxiv.org/abs/1010.5872
ζ-function and heat kernel formulae
Authors: F.A. Sukochev, D.V. Zanin

http://arxiv.org/abs/1010.2269
On p-adic Hurwitz-type Euler zeta functions
Authors: Min-Soo Kim, Su Hu

Topic #12 ----------- OP-SF NET 17.6 ---------- November 15, 2010

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 150 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 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/

For several years the Activity Group sponsored a printed Newsletter, most recently edited by Rafael Yanez. Back issues are accessible at:
http://www.mathematik.uni-kassel.de/~koepf/siam.html

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. To contribute an item to the discussion, send email to siam-opsf@siam.org .The archive of all messages can be found by following links at http://siam.org/activity/listservs.php. 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. For current information on SIAM and Activity Group membership, contact:
Society for Industrial and Applied Mathematics
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WWW : http://www.siam.org
http://www.siam.org/membership/outreachmem.htm

Topic #13   -----------   OP-SF NET 17.6 ---------- November 15, 2010

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 18.1 should be sent by January 1, 2011.

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:
http://math.nist.gov/opsf/
Information on joining SIAM and this activity group: service@siam.org

The elected Officers of the Activity Group (2008-2010) are:
Francisco J. Marcellán , Chair
Peter A. Clarkson, Vice Chair
Daniel W. Lozier, Secretary
Peter A. McCoy, Program Director

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