O P - S F N E T - Volume 17, Number 4 – July 15, 2010

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Today's Topics
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Calendar of Events:

July 12-16, 2010
   SIAM Annual Meeting, Pittsburgh, Pennsylvania, USA
   http://www.siam.org/meetings/an10/index.php

July 12-16, 2010
   International Workshop on Operator Theory and its Applications (IWOTA
   2010), Technische Universität Berlin, Germany
   http://www3.math.tu-berlin.de/iwota_2010/

July 17-22, 2010
   Sage Days 24 - Symbolic Computation in Differential Algebra and Special
   Functions, RISC. Hagenberg, Austria   17.3 #3
   http://wiki.sagemath.org/days24

July 19-23, 2010
   16th International Conference on Difference Equations and Applications,
   Riga, Latvia
   http://icdea2010.lu.lv/

July 25 - 28, 2010
International Symposium on Symbolic and Algebraic Computation (ISSAC 2010), Technische Universität München, München, Germany
http://www.issac-conference.org/2010/

August 2-6, 2010
Formal Power Series and Algebraic Combinatorics 2010
San Francisco State University, San Francisco, CA, USA
http://math.sfsu.edu/fpsac

August 16-December 17, 2010
MSRI Future Scientific Programs: Random Matrix Theory, Interacting Particle Systems and Integrable Systems
Mathematical Sciences Research Institute, Berkeley, California
www.msri.org/calendar/programs/ProgramInfo/259/show_program

August 18-21, 2010
International Congress in Honour of Professor H. M. Srivastava on his 70th Birth Anniversary at Uludag University, Bursa, Turkey
http://homepage.uludag.edu.tr/~srivastava/

August 19-27, 2010
International Congress of Mathematicians, Hyderabad, India
http://www.icm2010.org.in/

September 1-3, 2010
Workshop on "Integral Transforms, Positivity and Applications",
Copenhagen, Denmark   17.3 #4
www.matdat.life.ku.dk/~henrikp/witpa/

September 13-17, 2010
Random Matrix Theory and Its Applications I
Mathematical Sciences Research Institute, Berkeley, California
www.msri.org/calendar/workshops/WorkshopInfo/508/show_workshop

September 17-19, 2010
Symmetry, Separation, Super-integrability and Special Functions (S4) Conference, in honor of Willard Miller on the occasion of his retirement, University of Minnesota, Minneapolis, MN, USA,   16.6 #2
http://math.umn.edu/conferences/s4/

September 19-25, 2010
International Conference of Numerical Analysis and Applied Mathematics 2010 (ICNAAM 2010), Island of Rhodes, Greece
http://www.icnaam.org/

September 20-21, 2010
MSRI-Connections for Women: An Introduction to Random Matrices
Mathematical Sciences Research Institute, Berkeley, California
www.msri.org/calendar/workshops/WorkshopInfo/509/show_workshop

October 10-15, 2010
New Perspectives in Univariate and Multivariate Orthogonal Polynomials,
Banff International Research Station, Alberta, Canada   17.2   #6
http://www.birs.ca/birspages.php?task=displayevent&event_id=10w5061

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
Profesor A. M. Mathai, Kottayam, Kerala, India   17.2 #10

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/

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 Comngress on Industrial and Applied Mathematics,
Vancouver, Canada
http://www.iciam2011.com

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/

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 17.4   ----------   July 15, 2010

From: Guillermo López Lagomasino lago@math.uc3m.es
Subject: OPSFA 11 in Madrid

Universidad Carlos III de Madrid will host in Leganés, Madrid, from August 29 to
September 2, 2011, the 11-th International Symposium on Orthogonal Polynomials,
Special Functions and Applications. The meeting will be dedicated to celebrate Francisco
(Paco) Marcellán´s 60-th birthday. For an account on previous OPSFA and related
meetings see the OPSFA 10 history page:
http://wis.kuleuven.be/OPSFA/index.htm

There will be contributions from the following invited speakers:

- Manuel Alfaro, Universidad de Zaragoza, Spain
- Maria José Cantero, Universidad de Zaragoza, Spain
- Tom Claeys, Université Catholique de Louvain, Belgium
- Ulises Fidalgo Prieto, Universidad Carlos III de Madrid, Spain
- Alberto Grunbaum, University of Berkeley, USA
- Plamen Iliev. Georgia Institute of Technology, USA
- Doron Lubinsky, Georgia Institute of Technology, USA
- Andrei Martinez Finkelshtein, Universidad de Almería, Spain
- Evguenii Rakhmanov, University of South Florida, USA
- Ed Saff, Vanderbilt University, USA
- Barry Simon, Califormia Institute of Technology, USA
- Vilmos Totik, University of Szeged, Hungary, and University of South
  Florida, USA
- Walter Van Assche, Katholieke Universiteit Leuven, Belgium
- Roderick Wong, City University of Hong Kong, China
- Peter Yuditskii, University of Linz, Austria

Further information will be available on the web page of the symposium which is
under construction and will appear next September. The link will be
http://math.uc3m.es/opsfa11/

[The current link is http://gama.uc3m.es/opsfa11/ - Eds.]

International Scientific Committee:
Aleksander Aptekarev, Bernhard Beckermann, Christian Berg, Antonio Durán
Guardeño, Jeff Geronimo, Arno Kuijlaars, Guillermo López Lagomasino, Andrei
Martínez Finkelshtein, Paul Nevai, Jesús Sánchez Dehesa and Herbert Stahl.

We hope to welcome you in Madrid.

The local organizers,
Guillermo López Lagomasino (Chairman)
Jorge Arvesú Carballo (Secretary).

Topic #2   -----------   OP-SF NET 17.4   ----------   July 15, 2010

From: Francisco J. Marcellán   pacomarc@ing.uc3m.es
Subject: Foundations of Computational Mathematics FOCM'11

The next Foundations of Computational Mathematics conference (FOCM'11) will take place in Budapest in the period July 4-14, 2011. There are three interesting minisymposia:
- July 4-5-6. Special Functions and Orthogonal Polynomials. Organizers: P. Clarkson, A. Martínez Finkelshtein and K. Jordaan.
- July 8-9-10. Asymptotic analysis and high oscillation. Organizers: A. Kuijlaars, S. Olver and R. Wong.
- july 8-9-10. Approximation theory.Organizers: M. Buhmann, N. Dyn and M.Fornesier.

For more information, see
http://www.damtp.cam.ac.uk/user/na/FoCM11/

Topic #3   -----------   OP-SF NET 17.4   ----------   July 15, 2010

From: Francisco J. Marcellán   pacomarc@ing.uc3m.es
Subject: Charter Renewal Application

Recently we submitted the following application to SIAM to renew the Charter of our Activity Group for a further three years.

CHARTER RENEWAL APPLICATION

This CHARTER RENEWAL APPLICATION applies to the SIAM Activity Group on Orthogonal Polynomials and Special Functions (SIAG/OPSF). The SIAM Activity Group (or SIAG) to which this renewal applies was originally formed under the aegis of SIAM on July 15, 1990 by the SIAM Council and July 19, 1990 by the SIAM Board of Trustees, with its initial operating period beginning January 1, 1990 and ending December 31, 1992. Its charter has been renewed by the Council and the Board six times thereafter. This SIAG had 150 members as of December 31, 2009.

According to its Rules of Procedure, the objective(s) of the SIAG are to promote basic research in orthogonal polynomials and special functions; to further the application of this subject in other parts of mathematics, and in science and industry; and to encourage and support the exchange of information, ideas, and techniques between workers in this field, and other mathematicians and scientists.

Its purposed functions were to: 1) Organize minisymposia at the SIAM Annual Meeting in years where there is no SIAG conference. 2) Organize a track of at least six minisymposia at the SIAM Annual Meeting at least once every five years.

This SIAG does not have a regularly scheduled conference, though there is a biennial conference on "Orthogonal Polynomials, Special Functions and Applications" which essentially serves as one.

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The SIAG has complemented SIAM's activities and supported its proposed functions. The answers to the questions below indicate how this was accomplished and what the officers propose as the future directions for the SIAG.

1.- How is the field covered by the activity group doing? Is it growing, is the focus shifting? What have been the significant advances over the last three years?

The field of OPSFA knows an important activity during the last years due to the influence of contributions by individuals, many of them related to our SIAG, but also because of the increasing attention from different areas like Random Matrices, Integrable Systems, Number Theory as a sample. New techniques related to Riemann Hilbert problems, operator theory, rational approximation, asymptotic analysis, Potential Theory contribute to enhance our domain. Monographs and specialized meetings offer a good opportunity to reach people with different background and this represents a progress in the different approaches far away the standard reference to our domain as Classical Analysis. The main problem is that the most important contributions do not appear in the SIAM Journal of Mathematical Analysis as we will point out in below. The popular and successful monographs by B. Simon, M. E. H . Ismail, and P. Deift , among others, as well as the very recent NIST Handbook of Mathematical Functions edited by Frank Olver, Dan Lozier et al , with an relevant implication of our community, constitute a good sample of the growing and impact of our field. Finally, the aims of the large number of events which are announced in our Electronic News Net also show the significant advances and impact of the activities around OPSF.

 2.- How is the activity group doing? Is it remaining vibrant? Is the size of the SIAG stable or increasing? How is the SIAG keeping up with the changes in the field? Row are the broader interests of SIAM reflected in the activities of the SIAG?
 From a quantitative perspective, the membership of our SIAG remains stable. With the proposed actions listed in below we hope to increase the number of members with young researchers and people from developing countries. Some actions concerning the sponsoring of activities there would allow to contribute the attraction of more people in order to increase not only numerically but from a qualitative point of view our activity inside SIAM.

3.- Please list conferences/workshops the activity group has sponsored or co-sponsored over the past three years, and give a brief (one sentence or phrase) indication of the success or problems with each.
Several SIAG members have supported the editions of OPSF in Luminy, France (July 2007) and Leuven (July 2009) integrating the Organizing and Scientific Committees as well as invited speakers. Unfortunately, because of a lack of financial support, our SIAG did not appear on the list of sponsors of such events. Nevertheless, we have organized therein presentations of our SIAG and discussions about our role have been done not only with our membership attending the meeting but also with other people.

4.- Please indicate the number of minisymposia directly organized by the activity group at the last two SIAM annual meetings. When did the SlAG last organize a tract of minisymposia at an annual meeting?
We have not organized minisymposia at the last two SIAM annual meetings because of the formulation of new actions of our SIAG. The last minisymposia at a SIAM annual meeting was organized in 2006. See
http://meetings.siam.org/sess/dsp_programsess.cfm?SESSIONCODE=5340

5.- Please indicate other activities sponsored by the activity group, to include newsletters, prizes and Web sites. Have each of these been active and successful.
5.1.-The Electronic News Net of the SIAM Activity Group on OPSF appears every two months and constitutes one of the most important ways to disseminate information about scientific events, related to the aims of our SIAG, updated papers and contributions as well as opinions about our activity. It is received by all our membership and we have an interesting feedback with comments and suggestions concerning our activities.
5.2.-The OP-SF Talk has be transferred from NIST to SIAM in order to stimulate la visibility of our SIAG. We have a web page
(http://www.siam.org/activity/opsf/) where recent information and the archives of our SIAG can be read.
5.3.-We have proposed to SIAM the creation of the Gabor Szegö Prize to award every two years an early-career researchers for outstanding research, as determined by the prize committee, in the area of orthogonal polynomials and special functions. The proposal was sent to the President of SIAM early March 2010 and we are waiting the final decision of the SIAM Board. It would be an important recognition not only of the individuals but also of the SIAG.

6.- What activities are planned and proposed for the next period of the charter? Please describe scheduled and suggested future activities in detail.
6.1- To improve the support from SIAM to the OPSFA meetings that hold every two years in Europe with a very successful participation and quality of contributions. The tradition of these events is an important reference for our community and a very good place to explain our activity and our accountability.
6.2.- To Organize mini-symposia at the SIAM Annual Meeting in years where there is no an OPSFA conference. An important question is to have financial support from founding agencies as well as from SIAM.

6.3.- To promote the organization of Summer Schools in developing countries of Latin-America, Africa and South East Asia, where we have identified individuals, teams and institutions interested in our area. We will start with a Summer School in Tunisia in 2012 and in Brazil in 2014, but the financial support for such events constitutes a critical point. The suggested interval of two years seems to be realistic. Furthermore, a Summer School in the framework of the OPSFA symposium would be also important to optimize financial and human resources, mainly in order to support the travel and accommodation expenses of young researchers.
6.4.- We plan to increase our membership by informing researchers in our area of our SIAG activities through the mailing list, OPSF-Talk. Currently, the majority of our members are from the US, while many of the experts in the field are in Europe, Africa and Asia.

7.- How can SIAM help the activity group achieve its goals?
7.1.- First of all, with some financial support to our activities as well as their dissemination. In such a sense, SIAM News would be a nice platform for such a support but as we have pointed out in many occasions, our SIAG has not identified a SIAM scientific journal with the scope of our research interests. The evolution of the Editorial Board of SIAM Journal of Mathematical Analysis (a basic reference for the research on OPSFA from their origins until the mid nineties, not only because many relevant contributions to our domain were published here but also because of the participation of many of our most outstanding research leaders as members of the Board) shows a loss of the visibility of our membership therein and, as a consequence,   the attraction of people to our SIAG.
7.2.- The Gabor Szegö Prize, as a recognition of the outstanding activity of junior researchers, will represent an important tool to promote our SIAG. In such a sense, a quick answer from SIAM officials concerning our proposal would be very convenient and welcome.
7.3.- SIAM could have a special membership price for people who what to join SIAM just to be part of our SIAG. The current membership price is too expensive, especially for people living in developing countries.

8.- How can the activity group help SIAM in its general role of promoting applied mathematics and computational science?
8.1.- The dissemination of the relevant contributions in areas where OPSF play an important role.
8.2.- The organization of mini-symposia in the SIAM Annual Meetings where the emphasis on applications of OPSF in several areas (engineering, biomathematics, criptography, computer science, etc) can receive an important feedback from other researchers.
8.3.- The support to young researchers interested in our domain using the OPSF Summer Schools in order to create a critical mass and enhance the links between the different teams.
8.4.- The designation of liaison persons of our SIAG with related scientific organizations; for example Society for Special Functions and Applications (SSFA) in India, the Mathematical Physics interest group of the Institute of Physics as well as inside other organizations related to our interest areas , from either an applied or computational perspective. On the other hand, there are already

informal links with electronic journals such as SIGMA because of memberships on editorial boards.
This SIAG requests that the SIAM Council and Board of Trustees renew its charter for a three-year operating period beginning January 1, 2010.

Francisco Marcellan
Chair, SIAG/OPSF
May 31, 2010

Topic #4   -----------   OP-SF NET 17.4   ----------   July 15, 2010

From: Martin Muldoon muldoon@yorku.ca
Subject: Panayiotis D. Siafarikas 1953-2010

Panayiotis ("Panos") D. Siafarikas died in Patras, Greece on June 26, 2010. He had been diagnosed with cancer of the pancreas about six months ago.

Panos was born in 1953 in Tirnavos, Larissa, Greece and studied at the University of Patras obtaining his PhD under the supervision of Evangelos K. Ifantis in 1980. Apart from visiting positions in various countries, he had his career at the University of Patras, achieving the rank of Professor in 1992. He served in a number of administrative positions, including Chairman of the Department of Mathematics from 2003 to 2007.

His research interests were largely in the fields of special functions and differential equations though he also published in quantum theory, operator theory, difference equations and other areas. In a series of articles starting in the 1980s, some with Ifantis and others, he developed a method of using an operator in an abstract Hilbert space to discover properties of zeros of functions satisfying three-term recurrence relations. This was particularly useful for studying dependence of the zeros on a parameter, and for discovering the location of zeros in the complex plane. More recently, with Árpád Elbert (J. Approx. Theory 97 (1999), 31-39), he proved a monotonicity property of zeros of ultraspherical polynomials that marked a final step in a series of partial results by other authors over a 12-year period.

Among Panos' PhD students were Eugenia N. Petropoulou and Ioannis D. Stabolas, later colleagues at the University of Patras.

Panos served the international mathematical community by the organization of successful conferences. He was one of the main

organizers of the OPSFA meeting in Patras in September 1999 (dedicated to Theodore S. Chihara) and the Editor of its Proceedings (J. Comput. Appl. 133, Nos. 1-2, 2001).   He was also mainly responsible for the organization of the 2nd International Conference on Differential, Difference Equations and their Applications, in Patras in July 2002 (dedicated to Evangelos Ifantis) and editing its Proceedings (Hindawi Publishing Corporation, 2004).

Panos will be remembered for his outgoing and enthusiastic personality. He was a generous host and will be remembered fondly by all who had the pleasure to know him. He leaves his wife his wife Katerina, his daughters Athina and Amilia and his son Takis.

I am grateful to Eugenia N. Petropoulou for some of the information given here.

Topic #5   -----------   OP-SF NET 17.4   ----------   July 15, 2010

From: OP-SF NET Editors
Subject: Book on generalized Bessel functions

The web site
http://www.springer.com/mathematics/analysis/book/978-3-642-12229-3
announces the publication of

A. Baricz,
Generalized Bessel functions of the first kind,
Lecture Notes in Math. v. 1994, Springer-Verlag, 2010

"In this volume we study the generalized Bessel functions of the first kind by using a number of classical and new findings in complex and classical analysis. Our aim is to present interesting geometric properties and functional inequalities for these generalized Bessel functions. Moreover, we extend many known inequalities involving circular and hyperbolic functions to Bessel and modified Bessel functions."

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 May and June 2010.

http://arxiv.org/abs/1005.0336
Zeros of Orthogonal Polynomials Generated by Canonical Perturbations on Standard Measure
Authors: Edmundo J. Huertas, Francisco Marcellán, Fernando R. Rafaeli

http://arxiv.org/abs/1005.1197
Systems of reproducing kernels and their biorthogonal: completeness or non-completeness?
Authors: Anton Baranov, Yurii Belov

http://arxiv.org/abs/1005.2696
The Matrix Ansatz, Orthogonal Polynomials, and Permutations
Authors: Sylvie Corteel, Matthieu Josuat-Vergès, Lauren K. Williams

http://arxiv.org/abs/1005.2983
Skew-orthogonal Laguerre polynomials for chiral real asymmetric random matrices
Authors: G. Akemann, M. Kieburg, M.J. Phillips

http://arxiv.org/abs/1005.5192
Zeros of non-Baxter paraorthogonal polynomials on the unit circle
Authors: Brian Simanek

http://arxiv.org/abs/1005.0336
Zeros of Orthogonal Polynomials Generated by Canonical Perturbations on Standard Measure
Authors: Edmundo J. Huertas, Francisco Marcellán, Fernando R. Rafaeli

http://arxiv.org/abs/1006.0808
Orthogonal polynomials and operator orderings
Authors: Adel Hamdi, Jiang Zeng

http://arxiv.org/abs/1006.0962
Some examples of matrix-valued orthogonal functions having a differential and an integral operator as eigenfunctions
Authors: Manuel D. de la Iglesia

http://arxiv.org/abs/1006.4507
Exact mapping between system-reservoir quantum models and semi-infinite discrete chains using orthogonal polynomials
Authors: Alex W. Chin, Ángel Rivas, Susana F. Huelga, Martin B. Plenio

http://arxiv.org/abs/1006.0808
Orthogonal polynomials and operator orderings
Authors: Adel Hamdi, Jiang Zeng

http://arxiv.org/abs/1005.2773
Cubature formulae for orthogonal polynomials in terms of elements of finite order of compact simple Lie groups
Authors: Jiri Patera, Robert V. Moody

http://arxiv.org/abs/1005.3032
Generalized Hurwitz polynomials
Authors: Mikhail Tyaglov

http://arxiv.org/abs/1005.3932
Local Suprema of Dirichlet Polynomials and Zerofree Regions of the Riemann Zeta-Function
Authors: Michel Weber

http://arxiv.org/abs/1005.4293
Note on the Modified q-Bernstein Polynomials
Authors: Taekyun Kim, Lee-Chae Jang, Heungsu Yi

http://arxiv.org/abs/1005.4401
Uniform asymptotics of the coefficients of unitary moment polynomials
Authors: Ghaith A. Hiary, Michael O. Rubinstein

http://arxiv.org/abs/1005.4583
Proof of Brändén's Conjecture on (p,q)-eulerian polynomials via continued fractions
Authors: Heesung Shin, Jiang Zeng

http://arxiv.org/abs/1005.4659
On the local time of random walks associated with Gegenbauer polynomials
Authors: Nadine Guillotin-Plantard

http://arxiv.org/abs/1005.5186
Discrete analogues of the Laguerre inequalities and a conjecture of I. Krasikov
Authors: George Csordas, Matthew Chasse

http://arxiv.org/abs/1005.5555
On the best approximation of certain classes of periodic functions by trigonometric polynomials
Authors: Ievgen Ovsii

http://arxiv.org/abs/1005.0177
Algebraic Structures of Bernoulli Numbers and Polynomials
Authors: I-Chiau Huang

http://arxiv.org/abs/1005.1596
Maximal univalent disks of real rational functions and Hermite-Biehler
polynomials
Authors: V. Kostov, B. Shapiro, M. Tyaglov

http://arxiv.org/abs/1005.2052
Jacob's ladders and the $\tilde{Z}^2$-transformation of a polynomials in $\ln \vp_1(t)$
Authors: Jan Moser

http://arxiv.org/abs/1005.2285
Generalizations of an integral for Legendre polynomials by Persson and Strang
Authors: Enno Diekema, Tom H. Koornwinder

http://arxiv.org/abs/1005.2695
Zeroes of Wronskians of Hermite polynomials and Young diagrams
Authors: G. Felder, A.D. Hemery, A.P. Veselov

http://arxiv.org/abs/1006.1140
Nonsymmetric Askey-Wilson polynomials as vector-valued polynomials
Authors: Tom H. Koornwinder, Fethi Bouzeffour

http://arxiv.org/abs/1006.2033
Some identities on the q-Bernstein polynomials, q-Stirling number and q-Bernoulli numbers
Authors: Taekyun Kim, Jongsung Choi, Young-Hee Kim

http://arxiv.org/abs/1006.2505
Series with Hermite Polynomials and Harmonic Numbers
Authors: Khristo N. Boyadzhiev

http://arxiv.org/abs/1006.3210
Some operator identities related to $q-$Hermite polynomials
Authors: Johann Cigler

http://arxiv.org/abs/1005.4580
The degree of a q-holonomic sequence is a quadratic quasi-polynomial
Authors: Stavros Garoufalidis

http://arxiv.org/abs/1006.3339
Hyperbolic-sine analogues of Eisenstein series, generalized Hurwitz numbers,
and q-zeta functions
Authors: Yasushi Komori, Kohji Matsumoto, Hirofumi Tsumura

http://arxiv.org/abs/1005.4640
On the distribution of extreme values of zeta and L-functions in the strip
$1/2<\sigma<1$
Authors: Youness Lamzouri

http://arxiv.org/abs/1005.4712
The Lerch Zeta Function I. Zeta Integrals
Authors: Jeffrey C. Lagarias, W.-C. Winnie Li

http://arxiv.org/abs/1005.4890
Integral of exponent of a polynomial is a generalized hypergeometric function
of the coefficients of the polynomial
Authors: Alexander Stoyanovsky

http://arxiv.org/abs/1005.4967
The Lerch Zeta Function II. Analytic Continuation
Authors: Jeffrey C. Lagarias, W.-C. Winnie Li

http://arxiv.org/abs/1005.5040
The deformed exponential functions of two variables
Authors: Miomir S. Stanković, Sladjana D. Marinković, Predrag M. Rajković

http://arxiv.org/abs/1005.5116
Integer Matrix Exact Covering Systems and Product Identities for Theta
Functions
Authors: Zhu Cao

http://arxiv.org/abs/1005.0317
Algebraicity of the Appell-Lauricella and Horn hypergeometric functions
Authors: Esther Bod

http://arxiv.org/abs/1005.0451
New inequalities of Hermite-Hadamard type for functions whose second
derivatives absolute values are convex and quasi-convex
Authors: M.Z.Sarikaya, A. Saglam, H.Yildirim

http://arxiv.org/abs/1005.1104
A monotonicity property of Riemann's xi function and a reformulation of the
Riemann Hypothesis
Authors: Jonathan Sondow, Cristian Dumitrescu

http://arxiv.org/abs/1006.4499
Generating functions for q-Bernstein, q-Meyer-Konig-Zeller and q-Beta basis
Authors: Vijay Gupta, Taekyun Kim, Jongsung Choi, Young-Hee Kim

http://arxiv.org/abs/1006.5091
Functional Equations and Fourier Analysis
Authors: Dilian Yang

http://arxiv.org/abs/1006.5652
Improved q-exponential and q-trigonometric functions
Authors: Jan L. Cieśliński

http://arxiv.org/abs/1006.0323
A few equalities involving integrals of the logarithm of the Riemann zeta-function and equivalent to the Riemann hypothesis III. Exponential weight functions
Authors: Sergey K. Sekatskii, Stefano Beltraminelli, Danilo Merlini

http://arxiv.org/abs/1006.3194
Partition Identities for Ramanujan's Third Order Mock Theta Functions
Authors: William Y. C. Chen, Kathy Q. Ji, Eric H. Liu

http://arxiv.org/abs/1006.3252
From classical theta functions to topological quantum field theory
Authors: Razvan Gelca, Alejandro Uribe

http://arxiv.org/abs/1006.3336
Barnes multiple zeta-functions, Ramanujan's formula, and relevant series involving hyperbolic functions
Authors: Yasushi Komori, Kohji Matsumoto, Hirofumi Tsumura

http://arxiv.org/abs/1005.3469
Some trigonometric integrals involving the log gamma and the digamma function
Authors: Donal F. Connon

http://arxiv.org/abs/1006.0381
The Riemann Hypothesis
Authors: Ilgar Sh. Jabbarov (Dzhabbarov)

http://arxiv.org/abs/1006.4417
Some integral identities involving products of general solutions of Bessel's equation of integral order
Authors: S.K.H. Auluck

Topic #7   -----------   OP-SF NET 17.4   ----------   July 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
3600 University City Science Center
Philadelphia, PA 19104-2688 USA
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email: service@siam.org
WWW : http://www.siam.org
http://www.siam.org/membership/outreachmem.htm

Topic #8   -----------   OP-SF NET 17.4   ----------   July 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 17.5 should be sent by September 1, 2010.

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).

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