O P - S F N E T - Volume 16, Number 4 – July 15, 2009

Today's Topics:
1. OPSFA-10 updates
2. SIAM Fellows Program
3. Preprints in arXiv.org
4. About the Activity Group
5. Submitting contributions to OP-SF NET

Calendar of Events:

July 20-24, 2009
FPSAC'09 -21st Annual International Conference on
Formal Power Series and Algebraic Combinatorics, Hagenberg, Austria
15.5 #3

http://www.risc.jku.at/conferences/fpsac2009

July 20-25, 2009
10th Symposium on Orthogonal Polynomials, Special Functions and Applications
(OPSFA-10), Leuven, Belgium   15.5 #2   16.1 #2   16.4 #1
http://wis.kuleuven.be/OPSFA/OPSFA10.html

July 31--August 2, 2009
3rd Jairo Charris Seminar-Symmetries of differential and difference equations -
Universidad Sergio Arboleda, Bogotá, Colombia.
http://www.usergioarboleda.edu.co/matematicas/jairo_charris.htm

August 26-28, 2009
Workshop on Orthogonal Polynomials, Hankel and Jacobi Matrices, Copenhagen,
Denmark   16.3 #1
http://www.matdat.life.ku.dk/~henrikp/wop/

September 4-9, 2009

    2nd Dolomites Workshop on Constructive Approximation and Applications"
        (DWCAA09), Alba di Canazei (Trento), Italy
    http://www.math.unipd.it/~dwcaa09

September 13-19, 2009

    International Conference on Functional Equations and Inequalities, Krakow,
    Poland
    http://mat.ap.krakow.pl/icfei/13ICFEI/index.php

September 24-30, 2009

    6th Maratea Conference on Functional Analysis and Approximation Theory
    (FAAT2009), Acquafreda di Maratea, Italy
    http://www.dm.uniba.it/faat2009

September - October 2, 2009

    Approximation and extrapolation of convergent and divergent sequences and
    series, CIRM Luminy, France
    http://www.math.unipd.it/~luminy09/index.html

December 14-18, 2009

    Brownian motion and random matrices - American Institute of Mathematics, Palo
    Alto, California
    http://aimath.org/ARCC/workshops/brownianrmt.html

Topic #1   -----------   OP-SF NET 16.4   ----------   July 15, 2009

From: OP-SF NET Editors
Subject: OPSFA-10 updates

The web site
      http://wis.kuleuven.be/OPSFA/OPSFA10.html
for the 10th Symposium on Orthogonal Polynomials, Special Functions and Applications
(OPSFA-10), to be held in Leuven, Belgium, July 20-25, 2009 has been updated to include a
detailed program, abstracts and list of registrants to date.

Topic #2   -----------   OP-SF NET 16.3   ----------   May 15, 2009

From: OP-SF NET Editors
Subject: SIAM Fellows Program

In 2008, SIAM approved a program to designate as Fellows of the Society certain
members who have made outstanding contributions to fields served by SIAM. See:
http://www.siam.org/prizes/fellows/index.php

Recently the initial list of Fellows was announced. The include Richard Askey "for contributions to the theory of special functions" and George Andrews "for contributions to the theory of partitions and combinatorics". For the full list see:
http://fellows.siam.org/index.php?sort=year&value=2009

Topic #3   -----------   OP-SF NET 16.4   ----------   July 15, 2009

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 2009.

http://arxiv.org/abs/0905.1994
The z-measures on partitions, Pfaffian point processes, and the matrix hypergeometric kernel
Authors: Eugene Strahov

http://arxiv.org/abs/0905.4033
Theta Functions, Elliptic Hypergeometric Series, and Kawanaka's Macdonald Polynomial Conjecture
Authors: Robin Langer, Michael J. Schlosser, S. Ole Warnaar
Journal-ref: SIGMA 5 (2009), 055, 20 pages

http://arxiv.org/abs/0905.2265
Product formula for Jacobi polynomials, spherical harmonics and generalized Bessel function of dihedral type
Authors: Nizar Demni
Comments: this paper is accepted for publication in Int. Trans. Spec. Funct

http://arxiv.org/abs/0905.2557
Jacobi-Trudy formula for generalised Schur polynomials
Authors: A.N. Sergeev, A.P. Veselov
Comments: Extended version: Giambelli formula is added

http://arxiv.org/abs/0905.2603
Euler characters and super Jacobi polynomials
Authors: A.N. Sergeev, A.P. Veselov
Comments: 20 pages

http://arxiv.org/abs/0905.2620
Painlevé V and time dependent Jacobi polynomials
Authors: Estelle Basor, Yang Chen, Torsten Ehrhardt

http://arxiv.org/abs/0905.2753
On a conjecture of A. Magnus concerning the asymptotic behavior of the
recurrence coefficients of the generalized Jacobi polynomials
Authors: A. Foulquie Moreno, A. Martinez-Finkelshtein, V. L. Sousa

http://arxiv.org/abs/0905.0228
Two curious q-analogues of Hermite polynomials
Authors: Johann Cigler, Jiang zeng
Comments: 17 pages

http://arxiv.org/abs/0905.0412
An (inverse) Pieri formula for Macdonald polynomials of type C
Authors: Michel Lassalle (CNRS, Marne la Vallee, France)
Comments: 25 pages, LaTeX

http://arxiv.org/abs/0905.0617
Regularization of certain divergent series of polynomials
Authors: Liviu I. Nicolaescu
Comments: 9 pages

http://arxiv.org/abs/0905.0971
Bernstein polynomials and spectral numbers for linear free divisors
Authors: Christian Sevenheck
Comments: 14 pages

http://arxiv.org/abs/0905.1684
WKB and Turning Point Theory for Second Order Difference Equations: External
Fields and Strong Asymptotics for Orthogonal Polynomials
Authors: Jeffrey S. Geronimo
Comments: Plain tex, 86 pages, 3 figures

http://arxiv.org/abs/0905.2265
Product formula for Jacobi polynomials, spherical harmonics and generalized
Bessel function of dihedral type
Authors: Nizar Demni
Comments: this paper is accepted for publication in Int. Trans. Spec. Funct

http://arxiv.org/abs/0905.4256
Fine asymptotics for Bergman polynomials over domains with corners
Authors: Nikos Stylianopoulos
Comments: 4 pages

http://arxiv.org/abs/0906.0142
Infinitely many shape invariant potentials and new orthogonal polynomials
Authors: Satoru Odake, Ryu Sasaki
Comments: 4 pages, REVTeX4

http://arxiv.org/abs/0906.0344
A new identity linking coefficients of a certain class of homogeneous
polynomials and Gauss hypergeometric functions
Authors: Philip W. Livermore, Glenn R. Ierley

http://arxiv.org/abs/0906.1240
The Bouniakowsky conjecture and the density of polynomial roots to prime
moduli
Authors: Timothy Foo
Comments: submitted to Acta Arithmetica

http://arxiv.org/abs/0906.1553
Multilinear generating functions for Charlier polynomials
Authors: Ira M. Gessel, Pallavi Jayawant
Comments: 10 pages, 4 figures

http://arxiv.org/abs/0906.1996
The real zeros of a random polynomial with dependent coefficients
Authors: Jeffrey Matayoshi
Comments: 24 pages

http://arxiv.org/abs/0906.2331
Solvable Rational Potentials and Exceptional Orthogonal Polynomials in
Supersymmetric Quantum Mechanics
Authors: C. Quesne
Comments: 23 pages, no figure

http://arxiv.org/abs/0906.2408
A Discretized Fourier Orthogonal Expansion in Orthogonal Polynomials on a
Cylinder
Authors: Jeremy Wade

http://arxiv.org/abs/0906.3209
Sturm-Liouville Theory and Orthogonal Functions
Authors: H. Azad, M. T. Mustafa

http://arxiv.org/abs/0906.4242
Rates of convergence of some multivariate Markov chains with polynomial
eigenfunctions
Authors: Kshitij Khare, Hua Zhou
Comments: Published http://dx.doi.org/10.1214/08-AAP562 Annals of Applied
Probability (http://www.imstat.org/aap/) by the Institute of Mathematical
Statistics (http://www.imstat.org)
Journal-ref: Annals of Applied Probability 2009, Vol. 19, No. 2, 737-777

http://arxiv.org/abs/0906.4659
On subnormal solutions of periodic non-homogeneous linear differential
equations, special functions and special polynomials
Authors: Y. M. Chiang, K. W. Yu

http://arxiv.org/abs/0906.1861
On singular univariate specializations of bivariate hypergeometric functions
Authors: Raimundas Vidunas
Comments: 10 pages

http://arxiv.org/abs/0906.3485
The Uniformization of Certain Algebraic Hypergeometric Functions
Authors: Robert S. Maier
Comments: 40 pages, final sections revised

http://arxiv.org/abs/0906.4508
$_3F_2$ hypergeometric series and periods of elliptic curves
Authors: Dermot McCarthy
Comments: 9 pages, to appear in the International Journal of Number Theory

http://arxiv.org/abs/0905.0244
A generalization of the duality for finite multiple harmonic q-series
Authors: Gaku Kawashima
Comments: 13 pages

http://arxiv.org/abs/0905.3816
q-Analogs of some congruences involving Catalan numbers
Authors: Roberto Tauraso

http://arxiv.org/abs/0906.1389
A q-analogue of the FKG inequality and some applications
Authors: Anders Björner
Comments: Version 2: minor corrections not affecting math

http://arxiv.org/abs/0905.3910
Special functions and pathways for problems in astrophysics: An essay in honor of A.M. Mathai
Authors: H.J. Haubold
Comments: 21 pages, LaTeX
Journal-ref: Proceedings of the 8th Annual Conf. SSFA, Vol. 8, 2007(2009), pp. 3-23

http://arxiv.org/abs/0905.2732
Complete monotonicity of some functions involving polygamma functions
Authors: Feng Qi, Senlin Guo, Bai-Ni Guo
Comments: 14 pages

Topic #4   -----------   OP-SF NET 16.4   ----------   July 15, 2009

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 140 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, which is transmitted periodically by SIAM. It is provided as a free public service; membership in SIAM is not required. The OP-SF Net Editors are Diego Dominici (dominicd@newpaltz.edu) and Martin Muldoon (muldoon@yorku.ca).

To receive the OP-SF NET, send your name and email address to poly-request@siam.org .

Back issues can be obtained at the WWW addresses:
  http://staff.science.uva.nl/~thk/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 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
  phone: +1-215-382-9800
  email: service@siam.org
  WWW : http://www.siam.org
      http://www.siam.org/membership/outreachmem.htm

Finally, the Activity Group operates an email discussion group, called OP-SF Talk. To subscribe, send the email message

  subscribe opsftalk Your Name

to listproc@nist.gov. To contribute an item to the discussion, send email to
opsftalk@nist.gov. The archive of all messages is accessible at:
  http://math.nist.gov/opsftalk/archive

Topic #5   -----------   OP-SF NET 16.4   ---------- July 15, 2009

From: OP-SF NET Editors
Subject: Submitting contributions to OP-SF NET

To contribute a news item to OP-SF NET, send email to poly@siam.org with a copy to
one of the OP-SF Editors dominicd@newpaltz.edu or muldoon@yorku.ca .
Contributions to OP-SF NET 16.5 should be sent by September 1, 2009.

OP-SF NET is a forum 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,
job openings.
  Send submissions to: poly@siam.org
  Subscribe by mailing to: poly-request@siam.org
               or to: listproc@nist.gov
  Back issues can be obtained at the WWW addresses:
  http://staff.science.uva.nl/~thk/opsfnet
  http://www.math.ohio-state.edu/JAT/DATA/OPSFNET/opsfnet.html
  http://math.nist.gov/opsfnet/archive
  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
        Martin Muldoon, OP-SF NET co-editor
        Bonita Saunders, Webmaster