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Editors:
Diego Dominici dominicd@newpaltz.edu
Martin Muldoon muldoon@yorku.ca

The Electronic News Net of the
SIAM Activity Group on Orthogonal Polynomials and Special Functions
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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
http://www.risc.jku.at/conferences/fpsac2009

July 20-25, 2009
10th Symposium on Orthogonal Polynomials, Special Functions and Applications (OPSFA-10), Leuven, Belgium

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
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

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
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.

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
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

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)

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

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

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
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:


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:

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