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[Fractional Calculus & Applied Analysis](#)

Latest SCI Journal Papers on FDA

(Searched on January 15, 2016)

[A fractional derivative inclusion problem via an integral boundary condition](#)

By: Baleanu, Dumitru; Moghaddam, Mehdi; Mohammadi, Hakimeh; Rezapour, Shahram

JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS Volume:
21 Issue: 3 Pages: 504-514 Published: SEP 2016

[Fractional characteristic times and dissipated energy in fractional linear viscoelasticity](#)

By: Colinas-Armijo, Natalia; Di Paola, Mario; Pinnola, Francesco P.

COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL
SIMULATION Volume: 37 Pages: 14-30 Published: AUG 2016

[Fractal calculus involving gauge function](#)

By: Golmankhaneh, Alireza K.; Baleanu, Dumitru

COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL
SIMULATION Volume: 37 Pages: 125-130 Published: AUG 2016

[A new material identification pattern for the fractional Kelvin-Zener model describing biomaterials and human tissues](#)

By: Spasic, Dragan T.; Kovincic, Nemanja I.; Dankuc, Dragan V.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL
SIMULATION Volume: 37 Pages: 193-199 Published: AUG 2016

[ON THE L-q-SPECTRUM OF PLANAR SELF-AFFINE MEASURES](#)

By: Fraser, Jonathan M.
TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY Volume:
368 Issue: 8 Pages: 5579-5620 Published: AUG 2016

[NEW HERMITE-HADAMARD'S INEQUALITIES FOR PREINVEX FUNCTIONS VIA FRACTIONAL INTEGRALS](#)

By: Qaisar, Shahid; Iqbal, Muhammad; Muddassar, Muhammad
JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS Volume:
20 Issue: 7 Pages: 1318-1328 Published: JUN 15 2016

[Noether symmetries and conserved quantities for fractional Birkhoffian systems with time delay](#)

By: Zhai, Xiang-Hua; Zhang, Yi
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL
SIMULATION Volume: 36 Pages: 81-97 Published: JUL 2016

[A note on fractional neutral integro-differential inclusions with state-dependent delay in Banach spaces](#)

By: Suganya, Selvaraj; Baleanu, Dumitru; Arjunan, Mani Mallika
JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS Volume:
20 Issue: 7 Pages: 1302-1317 Published: JUN 15 2016

[Global Dynamics and Bifurcations of Two Quadratic Fractional Second Order Difference Equations](#)

By: Kalabusic, S.; Kulenovic, M. R. S.; Mehuljic, M.
JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS Volume:
21 Issue: 1 Pages: 132-143 Published: JUL 2016

[Self-evolution of hyper fractional order chaos driven by a novel approach through genetic programming](#)

By: Gao, Fei; Lee, Teng; Cao, Wen-Jing; et al.
EXPERT SYSTEMS WITH APPLICATIONS Volume: 52 Pages: 1-15 Published:
JUN 15 2016

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Call for Papers

8th Conference on Non-integer Order Calculus and its Applications (RRNR 2016)

<http://www.rrnr.aei.polsl.pl/>

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Scope

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The scope of the conference includes, but is not limited to, the following topics:

- mathematical preliminaries of non-integer order systems,
- continuous-time non-integer order systems,
- discrete-time non-integer order systems,
- stability, controllability, observability of non-integer order systems,
- identification of non-integer order system,
- control of non-integer order systems,
- applications of non-integer order systems.

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Publication

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After a careful reviewing process, all accepted papers after proper registration and presentation, will be published in the conference Proceedings by **Springer** as book chapters in a book series of **Lecture Notes in Electrical Engineering**. Note that LNEE is indexed by: **ISI Conference Proceedings Citation Index (Thomson Reuters), EI-Compendex, SCOPUS, MetaPress, Springerlink**.

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Fee

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The RRNR Conference itself is **free of charge**. The participants cover the cost of travel and accommodation.

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Important dates

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Paper Submission (Full Paper): April 01, 2016

Notification Date: May 15, 2016

Author's Registration: June 05, 2016

Camera Ready: June 05, 2016

Conference Date: September 20-21, 2016

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Submission

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Papers (in English) should not exceed **10** pages and be prepared according to the submission instruction provided at the conference website, **LaTeX** is preferred, **MS Word** is accepted. Papers will be submitted electronically using the **EasyChair** submission system. For details please visit: <http://rrnr.aei.polsl.pl/index.php?id=submission>

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Conference Program Committee

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Prof. Tadeusz Kaczorek (PL) - Chairman

Prof. Adam Czornik (PL) - Co-Chairman

Prof. Jerzy Klamka (PL) - Co-Chairman

Prof. Krishnan Balachandran (IND)

Prof. Dumitru Baleanu (RO)

Prof. Stefan Domek (PL)

Prof. Andrzej Dzieliński (PL)

Prof. Małgorzata Klimek (PL)

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Prof. Tenreiro Machado (PT)

Prof. Wojciech Mitkowski (PL)

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Prof. Ewa Pawłuszewicz (PL)

Prof. Ivo Petras (SK)

Prof. Igor Podlubny (SK)

Prof. Dominik Sierociuk (PL)

Prof. Andrzej Świerniak (PL)

Prof. Blas Vinagre (ES)

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Conference Venue

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Kolejarz Hotel

Tadeusza Kościuszki 23,

34-500 Zakopane, Poland

tel.: (+48)182015973, (+48)182015468

<http://www.kolejarz.wzakopanem.pl/3462,start.html>

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International Conference on Fractional Differentiation and its Applications, (ICFDA 2016)

-----July 18–20, 2016, Novi Sad, Serbia.

<http://www.icfda16.com/public/>

The Organizing Committee of the ICFDA16 invite you to participate in this event. Its objectives are to review and discuss some of the latest trends in various fields of

theoretical and applied FC. By bringing together the experts and young researchers, it aims to promote exchange of ideas in topics of mutual interests, to establish links between scientific communities with complementary activities and to encourage them for collaboration.

Research contributions: full papers; short presentations described by minimum two pages abstracts (with clear statement of the problem, a short description of applied analysis and preliminary results); posters (A1 portrait orientation). Round table discussions will be organized as well.

Deadlines: – Submission of the proposals: 15 March, 2016; – Notification of acceptance: 15 April, 2016; – Final submission: 30 April, 2016.

Contacts: icfda16@uns.ac.rs , info@icfda16.com

Chair of National Organizing Committee: *Dragan Spasic*,
E-mail: spasic@uns.ac.rs, University of Novi Sad,
Faculty of Technical Sciences, Dept. of Mechanics, Novi Sad, Serbia
Chair of International Program Committee: *Teodor Atanackovic*
Chair of FDA Steering Committee: *YangQuan Chen*

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Books

Intelligent Numerical Methods: Applications to Fractional Calculus

George A. Anastassiou, Ioannis K. Argyros

Book Description

In this monograph we present the complete recent work of the past three years of the authors on Numerical Analysis and Fractional Calculus. It is the natural outgrowth of their related publications. Chapters are self-contained and can be read independently and several advanced courses can be taught out of this book. An extensive list of

references is given per chapter. The topics covered are from A to Z of this research area, all studied for the first time by the authors.

More information on this book can be found by the following link:

<http://link.springer.com/book/10.1007/978-3-319-26721-0>

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Discrete Fractional Calculus

Christopher Goodrich, Allan C. Peterson

Book Description

In this text we provide the first comprehensive treatment of the discrete fractional calculus with up-to-date references. We believe that students who are interested in learning about discrete fractional calculus will find this text to be a useful starting point. Moreover, experienced researchers, who wish to have an up-to-date reference for both discrete fractional calculus and on many related topics of current interest, will find this text instrumental.

Furthermore, we present this material in a particularly novel way since we simultaneously treat the fractional- and integer-order difference calculus (on a variety of time scales, including both the usual forward and backwards difference operators). Thus, the spirit of this text is quite modern so that the reader can not only acquire a solid foundation in the classical topics of the discrete calculus, but is also introduced to the exciting recent developments that bring them to the frontiers of the subject. This dual approach should be very useful for a variety of readers with a diverse set of backgrounds and interests.

More information on this book can be found by the following link:

<http://link.springer.com/book/10.1007/978-3-319-25562-0>

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Journals

Fractional Calculus and Applied Analysis

Volume 19, Issue 1 (Selected)

[Smallest Eigenvalues for a Right Focal Boundary Value Problem](#)

Eloe, Paul / Neugebauer, Jeffrey T.

[High-Order Algorithms for Riesz Derivative and their Applications \(III\)](#)

Ding, Hengfei / Li, Changpin

[Existence and Uniqueness for a Class of Stochastic Time Fractional Space Pseudo-Differential Equations](#)

Hu, Ke / Jacob, Niels / Yuan, Chenggui

[Error Estimates for Approximations of Distributed Order Time Fractional Diffusion with Nonsmooth Data](#)

Jin, Bangti / Lazarov, Raytcho / Sheen, Dongwoo / Zhou, Zhi

[Bogolyubov-Type Theorem with Constraints Generated by a Fractional Control System](#)

Liu, Xiaoyou / Xu, Youjun

[Numerical Solution of Nonstationary Problems for a Space-Fractional Diffusion Equation](#)

Vabishchevich, Petr N.

[Solving 3D Time-Fractional Diffusion Equations by High-Performance Parallel Computing](#)

Zhang, Wei / Cai, Xing

[Physical and Geometrical Interpretation of Grünwald-Letnikov Differintegrals: Measurement of Path and Acceleration](#)

Cioć, Radosław

[Some Applications of Fractional Velocities](#)

Prodanov, Dimiter

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Entropy

(selected)

[Chaos on the Vallis Model for El Niño with Fractional Operators](#)

Badr Saad T. Alkahtani and Abdon Atangana

[A Novel Weak Fuzzy Solution for Fuzzy Linear System](#)

Soheil Salahshour, Ali Ahmadian, Fudziah Ismail and Dumitru Baleanu

[Stability Analysis and Synchronization for a Class of Fractional-Order Neural Networks](#)

Guanjun Li and Heng Liu

[Particular Solutions of the Confluent Hypergeometric Differential Equation by Using the Nabla Fractional Calculus Operator](#)

Resat Yilmazer, Mustafa Inc, Fairouz Tchier and Dumitru Baleanu

[New Derivatives on the Fractal Subset of Real-Line](#)

Alireza Khalili Golmankhaneh and Dumitru Baleanu

[Predicting Traffic Flow in Local Area Networks by the Largest Lyapunov Exponent](#)

Yan Liu and Jiazhong Zhang

[Increment Entropy as a Measure of Complexity for Time Series](#)

Xiaofeng Liu, Aimin Jiang, Ning Xu and Jianru Xue

[Cloud Entropy Management System Involving a Fractional Power](#)

Rabha W. Ibrahim, Hamid A. Jalab and Abdullah Gani

[Complexity Analysis and DSP Implementation of the Fractional-Order Lorenz Hyperchaotic System](#)

Shaobo He, Kehui Sun and Huihai Wang

[Identify the Rotating Stall in Centrifugal Compressors by Fractal Dimension in Reconstructed Phase Space](#)

Le Wang, Jiazhong Zhang and Wenfan Zhang

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Paper Highlight

Exact Solutions for Fractional Differential-Difference Equations by (G'/G) -Expansion Method with Modified Riemann-Liouville Derivative

Bekir, A; Guner, O; Ayhan, B ; Cevikel, AC

Publication information: ADVANCES IN APPLIED MATHEMATICS AND MECHANICS, Volume 8, APR 2016, Pages 293-305

<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=10127744&fileId=S2070073316000072>

Abstract

In this paper, the (G'/G) -expansion method is suggested to establish new exact solutions for fractional differential-difference equations in the sense of modified Riemann-Liouville derivative. The fractional complex transform is proposed to

convert a fractional partial differential difference equation into its differential difference equation of integer order. With the aid of symbolic computation, we choose nonlinear lattice equations to illustrate the validity and advantages of the algorithm. It is shown that the proposed algorithm is effective and can be used for many other nonlinear lattice equations in mathematical physics and applied mathematics.

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