



#### **EDITORIAL**

# FCAA RELATED NEWS, EVENTS AND BOOKS (FCAA-VOLUME 20-6-2017)

# Virginia Kiryakova

Dear readers,

in the Editorial Notes we announce news for our journal, anniversaries, information on international meetings, events, new books, etc. related to the FCAA ("Fractional Calculus and Applied Analysis") areas.

# 1. Calendar of FC Meetings

#### **ICFDA 2018:**

"International Conference on Fractional Differentiation and its Applications"

(16-18 July 2018, Amman, The Hashemite Kingdom of Jordan) Website:

http://conferences.ju.edu.jo/en/icfda2018/Home.aspx.

The ICFDA '18 is a specialized conference on fractional-order calculus and its applications, an event of the biannual series of international conference ICFDA, http://conferences.ju.edu.jo/en/icfda2018/Lists/

PastConferences/PCList.aspx.

This conference is organized under the Patronage of Her Royal Highness Princess Sumaya bint El Hassan, President of the El Hassan Science City and Royal Scientific Society, and sponsored by The University of Jordan and Scientific Research Support Fund, Jordan.

Fractional Calculus is a generalization of the integer-order Calculus. The fractional-order differentiation of arbitrary orders takes into account the memory effect of many important systems. The order of the derivatives may also be variable, distributed or complex. Recently, fractional-order calculus became a more accurate tool to describe systems in various fields in mathematics, biology, chemistry, medicine, mechanics, electricity, control theory, economics, and signal and image processing. A wide range of topics on FDA are included.

Prospective authors are invited to submit a full paper (4-6 pages) describing original work. All submissions should be made electronically through the conference website. Students are encouraged to participate on the best student paper award contest.

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Accepted papers will be published in the conference proceedings subject to advance registration of at least one of the authors. Additionally, extended versions of selected papers will be published in special issues of international journals.

All details on committees, keynote and invited speakers, registration fees, instructions to authors, etc., can be found at the conference website.

Important Dates: – Submission of tutorials and special sessions proposals: Feb. 15, 2018; – Submission of regular and student papers: March 1, 2018; – Notification of acceptance: May 2, 2018; – Submission of camera-ready papers: May 25, 2018.

On behalf of Organizers, ICFDA 2018 General Chair:

Prof. Shaher Momani

(Dean of Academic Research, The University of Jordan, Amman 11942, Jordan), email 1: icfda18@ju.edu.jo email 2: s.momani@ju.edu.jo

#### Conference OTHA-2018

(Modern Methods, Problems and Applications of Operator Theory and Harmonic Analysis VIII) April 22-27, 2018, http://www.otha.sfedu.ru/conf2018/

The conference will take place in Rostov-on-Don, Russia. Working days of the conference: 23 - 26 of April 2018; Arrival: April 22nd; Departure: April 27th. Deadline for registration and abstract submission: 1st of April 2018.

Conference sessions will take place on: – Functional analysis and operator theory; – Function theory and approximation theory; – Differential equations and mathematical physics (Chair - Vladislav Kravchenko); – Hausdorff operators and related topics (Chair - Elijah Liflyand); – Probability-analytical models and methods (Chair - Igor Pavlov); – Bioinformatics and mathematical modelling (Chair - Alexander Melerzanov).

See details on abstract guidelines, conference registration fee, visas, etc. at the conference website. Contacts and questions at:

otha.conference@gmail.com.

On behalf of Organizers, Prof. Alexey Karapetyants

2018 IFAC Conference on Advances in Proportional Integral Derivative Control (PID '18), Ghent, Belgium, May 9-11, 2018 Website: http://www.pid18.ugent.be/

Special Session Invitation: "Fractional Order Proportional Integral Derivative Control".

Proportional-integral-derivative (PID) controllers are surely the most adopted controllers in industry because of the cost/benefit ratio they offer. In this context, fractional calculus (differentiation or integration of noninteger orders) provides a natural tool to generalize the integral and derivative actions leading to the fractional-order proportional-integral-derivative (FOPID) controllers. In the past years, the design of FOPID controllers has been the subject of many investigations because of the additional flexibility they are able to provide with respect to standard (integer-order) PID controllers. It is nowadays recognized that FOPID controllers can outperform standard PID controllers, both in terms of robustness and performance. However, they do not yet enjoy a standard well-established alternative to integer-order PID controllers, with systematic applications in industry. The aim of this invited session is to fuel the research in fractional order PID control, and more broadly, in fractional order industrial control. We wish to promote the culture of fractional order control as an effective and intriguing alternative to classical control, and ultimately, foster its widespread diffusion among the academia and the industry.

This session includes (but is not not limited to) the following topics: 1. tuning and autotuning methodologies; 2. innovative control architectures that use FOPID controllers as sub-blocks; 3. performance assessment; 4. comparison with other control techniques; 5. multi-input-multi-output FOPID control; 6. cascaded control systems; 7. complex-order FOPID control; 8. applications; etc.

The participants should submit title, authors, and a short abstract of the proposed research as soon as possible, to: fabrizio.padula@curtin.edu.au (deadline was moved to Dec. 2017), so that the paper can be included in the review process as an invited session paper.

Organizers: Dr. Fabrizio Padula (Curtin University, Australia), Prof. Blas M. Vinagre (University of Extremadura, Spain) and Prof. YangQuan Chen (University of California Merced, USA).

Third International Conference on Advances in Signal, Image and Video Processing: "SIGNAL 2018", May 20-24, 2018, Nice, France Website:

https://www.iaria.org/conferences2018/SIGNAL18.html

We are organizing a Special Session on Fractional Calculus and Applications, see details at:

https://www.iaria.org/conferences2018/filesSIGNAL18/FCA.pdf.

Prospective authors are invited to submit original papers and contacts the organizers of this session. Important Deadlines (somewhat flexible): Inform the Chairs: As soon as you decided to contribute; - Submission:
Feb 7, 2018; - Notification: March 7, 2018; - Registration: March 21, 2018;
Camera ready: April 2, 2018.

Note the following details about conference publications:

Indexing: – Conference proceedings and Journals are indexed by the Library of Congress of the United States (ISSN numbers); – Conference proceedings are sent for indexing to ISI Thomson Reuters by Filodiritto/InFOROmatica Publisher, Italy; – IARIA Journals are sent for indexing to ISI Thomson Reuters by Filodiritto/InFOROmatica Publisher, Italy.

Selected authors of presented articles will be invited to submit extended versions to the following journals:

- IARIA journals | Library of Congress of USA | Submitted to ISI Thomson | free submission | open access |;
  - IFSA journal | IFSA organization | free submission | open access |;
- The IARIA "Collection" of SENSORS journal | MDPI organization |
   SCIE (IF: 2.677) | SCOPUS | etc. | publication fees | open access |.
   Organizers:

Prof. Jocelyn Sabatier, jocelyn.sabatier@u-bordeaux.fr, and Prof. Manuel Ortiqueira, mdo@fct.unl.pt

### 2. In Memory of the Late Rudolf Gorenflo

With great sorrow and sadness we have to report that one of the founding editors of the FCAA journal, our colleague and friend Rudolf Gorenflo, Professor Emeritus for Numerical Analysis at the Free University of Berlin, passed away on October 20, 2017, aged 87. With him, the FC community lost a brilliant mathematician, an excellent teacher, an enthusiastic supporter of young researchers, an active collaborator, and finally a very nice person and a good friend for many of us.

Immediately after this sad news was made public by his family, the members of the FCAA editorial board started to express their condolences to his family and to each other. Some of them were very short and others contained personal stories, but all were impulsive and showed a deep and truly consternation of the FC community regarding this hard loss. Let us reproduce here some pieces of these condolences to emphasize the role the late Rudolf Gorenflo played for the FC community, his impact on both the leading experts and young researches, and the deep of our sorrow and sadness that he is not with us anymore.

"We lost one of the founding editors of the FCAA journal, who was deep engaged with its development and helped not only as well-known promoter and experienced reviewer, but also as a wise advisor in many delicate cases and supporter of young researchers."

Virginia Kiryakova (Bulgarian Academy of Sciences, Bulgaria)



Prof. Rudolf Gorenflo

(The picture was taken by Dipl.-Math. Michael E. Klews during the fall meeting of the Mathematical Society of Berlin in September 2012)

"This is a very sad event for us. Unfortunately one of the Classics of fractional calculus passed away."

Vasily Tarasov (Lomonosov Moscow State University, Russia)

"The death is sad. But he left a lot. Probably many of us, including myself, used Gorenflo's algorithms for first simulations of fractional differential equations."

Mark Edelman (Yeshiva University, USA)

"I feel I was very lucky to know Professor Rudolf Gorenflo – a great mathematician and an extraordinary person. I would like to recall that Professor Gorenflo gave three wonderful lectures after FDA10 in Badajoz, and with Blas Vinagre and Ines Tejado we were able to make on-the-fly recordings. Listen to his voice, look at his handwritten slides (foils) and enjoy his masterful lectures (link: http://web.tuke.sk/fda10/activities.html)"

Igor Podlubny (Technical University of Kosice, Slovak Republic)

"Professor Gorenflo was a great Teacher. I closely collaborated with him writing several joint papers. He was one of my great Teachers. My deepest sympathy to his family members on the loss of their loved one."

Sabir Umarov (University of New Haven, USA)

"This is very sad news indeed. Rudolf Gorenflo was not only a brilliant researcher but he also contributed to the progress in our area by providing extremely valuable support to many young colleagues coming into the field."

Kai Diethelm (Technical University Braunschweig, Germany)

"Rudolf Gorenflo was for me a teacher, a facilitator, and a good friend for a quarter of century. Losing him hurts me. We with my wife Julia visited him in a hospital after his last operation few days before he passed away. He could communicate with us, laughed, and even made some jokes in his unique manner. This remembrance of Rudolf will stay in our memory forever."

Yuri Luchko (Technical University of Applied Sciences Berlin, Germany)

"I have been knowing Professor Gorenflo since the mid 1970ties when I attend his lectures on numerical analysis, and then incorrectly posed problems. As a tutor, I served him in his class on probability theory. He was at that time one of the few professors of some international standing at the Department of Mathematics at the Freie Universiät Berlin and at the same time one of the supportive members of staff for students, popular and at the same time highly respected by all. His death is a great loss not only for our community; however, it would appropriate us making an effort to commemorate his legacy as mentor and teacher, researcher and scholar, and colleague and friend."

Niels Jacob (Swansea University, UK)

"Rudolf came to two research meetings in Chester. Both times I was impressed by his enthusiasm to engage with all the students who were presenting their work alongside the established researchers. His encouragement of the work of many researchers will be long remembered."

Neville Ford (University of Chester, UK)

"Professor Rudolf Gorenflo was a unique and brilliant researcher in our field. During the ICPAM12 conference, he told me that his wish would be to die while presenting a lecture about fractional calculus. I was and am very much impressed about these deep words."

Dumitru Baleanu (Cankaya University, Turkey)

"I met Professor Gorenflo in 2000 when I worked on my Laurea thesis coadvised by Mainardi and Gorenflo for my degree in Physics at the University of Bologna. I remember his kind and friendly manners and his availability when I was still a young researcher. Among all my memories of him, I like to remember his support through the Berlin Mathematical Society for organization of a workshop in Bilbao in November 2013."

Gianni Pagnini (Basque Center for Appl. Math., Spain)

"Rudolf had been very important for me as, because of his example and mentorship, he was one of the persons responsible of my "conversion" to probability theory. In our meetings, in various parts of the world, we discussed not only Mathematics. I still remember a dinner in Bologna where he was sharing his difficult experiences in Berlin in the last weeks of WWII."

Enrico Scalas (University of Sussex, UK)

"I was fortunate to make his acquaintance and have, albeit short, a conversation with him during the FDA10 conference in Badajoz. And the positive attitude that I received from him undoubtedly played an important part in my life. Thinking of him fills my heart with warm."

Anatoly A. Alikhanov (Kabardino-Balkarian State University, Russia)

"In my first thesis I started working on fractional approaches to physics problems such as relaxation and diffusion. My thesis supervisor, the late Theo Nonnenmacher, had already taught us some ideas about fractional calculus in our second-term mechanics lectures. Only much later I understood how Nonnenmacher's interest in fractional calculus was originally sparked. Rudolf Gorenflo told me that Theo Nonnenmacher was in fact his the brother-in-law! So indirectly Rudolf was a big influence on my career - I can only repeat what all others said before, about his scientific influence and his extremely kind character as well as fine sense of humour. I particularly enjoyed the fact that we both unmistakenly spoke with a south-western colour in German."

Ralf Metzler (University of Potsdam, Germany)

"With pain and sorrow I read the sad news. He was my co-author and collaborator previous years. I will always remember him as a strong mathematician and very nice and supportive person."

Stefan Samko (University of Algarve, Portugal)

"The very sad news about Prof. Rudolf Gorenflo restored in my memory our first meeting in Tokyo at 1989 at the International Conference on Fractional Calculus in Tokyo, 1989. He kindly invited me to visit West Berlin. At next year, we shortly met there with him and family. After that several my colleagues and former students from Belorussian university got opportunities to work with him in Berlin for the rather long time. He was nice, very friendly man and top level mathematician, who always supported beginners in calculus related research."

Oleg Marichev (Wolfram Research Inc., USA)

"I feel very sorry to hear this sad news. Although I only met him a few times in FDA conferences, I deeply think that he is a very good man and have made great contributions to fractional calculus. I paste this sad news on Wechat Group of Fractional Calculus. All of my Chinese colleagues are deep in pain and sorrow. On behalf of Chinese fractional calculus community, we shall convey our condolences to his family."

Changpin Li (Shanghai University, China)

"Since my first meeting with Professor Rudolf Gorenflo in 1992 in Chemnitz, he has been constantly promoting and inspiring me. He had taught a lot of knowledge, daily philosophies. And I have learnt very much how doing mathematics should be, and how mathematicians should think. It is my most valuable experiences and memories that I could discuss and work with him."

Masahiro Yamamoto (The University of Tokyo, Japan)

"At this very sad time, we remember how Rudolf Gorenflo loved the life. We were finishing our joint book on Mittag-Leffler function receiving Rudolfs emails with important suggestions practically each day. Once he disappeared for few days and we were worried whats happen. Later we have got a message from him. He wrote: "I have been at the operation with shoulder joint. Can you imagine, surgery said that I was in clinical death. Now I'm well and ready to work with e-mail..." We have missed an enthusiastic man with great personality loving the life in all its manifestations."

Francesco Mainardi (University of Bologna, Italy) and Sergei Rogosin (Belarusian State University, Minsk, Belarus)

For the detailed biographies of the late Professor Rudolf Gorenflo including the list of his publication we refer to the recent publications Yu. Luchko, F. Mainardi and S. Rogosin: Professor Rudolf Gorenflo and his contribution to fractional calculus, Fract. Calc. Appl. Anal. 14 (2011), 3-18 and F. Mainardi: Professor Rudolf Gorenflo: Citation for His 85th Birthday, xv-xviii, in Pei Dang, Min Ku, Tao Qian, Luigi G. Rodino (eds.) "New Trends in Analysis and Interdisciplinary Applications", Selected Contributions of the 10th ISAAC Congress, Macau 2015, Springer-Birkhauser (2017).

Our condolences are with the family of our colleague and friend Rudolf Gorenflo.

Composed by: Yuri Luchko, (Beuth Technical University of Applied Sciences, Berlin, GERMANY)

On behalf of: FCAA Editorial Board

#### 3. 70th Anniversary of Professor Raoul Nigmatullin

On September 24, 2017, Professor Raoul Rashid Nigmatullin has celebrated his 70th anniversary and 45 years of his scientific activities. Prof. Dr. Phys.-Math. Sciences Nigmatullin, Dept. of Radioelectronics and Informative-Measurement Technics at Kazan Research Technical University, Tatarstan – Russian Federation, was born on September 24, 1947 in Tatar family of the young teacher Rashid Nigmatullin who later became professor of radioelectronics and electrochemistry and Rector of the Kazan Aviation Institute.

He obtained his intermediate education in Kazan in 1965 year, in the specialized school No 131 on physics and mathematics with a silver medal. In year 1970 he finished the Physical Faculty of Kazan State University with honors and received Master Degree on specialization of theoretical physics. During years 1970-1973 he was postgraduate student at the Theoretical Physics Department of Kazan University, in 1974 year defended his Candidate Thesis (which is equivalent to PhD thesis) and begun to work as an assistant on the department of Theoretical Physics. This PhD thesis was devoted to consideration of kinetics of paramagnets at low temperatures. Since 1978 year he worked as a senior lecturer (Associate Professor) in the same department, proved himself as a good lecturer and read all traditional subjects of the theoretical physics: theoretical and quantum mechanics, thermodynamics and statistical physics, etc.

In 1981 year Raoul Nigmatullin participated in competition for visiting as a probationer to the Great Britain. In the period Sept. 1982–July 1983, he worked there as a postdoctoral assistant in the laboratory of physics of dielectrics (former Chelsea-college of London University) under the leadership of Prof. A.K. Jonscher who was the well-known specialist in physics of dielectrics. Then, in 1990 he was invited again for 3 months in the King's college (London University) to continue his investigations in dielectric relaxation phenomena in the laboratory of Prof. Robert M. Hill. During Nov. 1991–Jan. 1992 he was invited by Dr. Alain Le Mehaute (Alcatel Alsthom Resherche, later ISMANS) in France to work in the area of fractal physics. May be as a result of that collaboration, it appeared the book:

– A. Le Mehaute, R.R. Nigmatullin, L. Nivanen, "Flèches du temps et géométrie fractale", Hermes, Paris (2nd Ed., 1998).

In 1992 year Raoul Nigmatullin defended his doctorate thesis and obtained the full Doctorate degree (Dr. Sci.) of Physics and Mathematics. Since March 1994, he obtained the status of Full Professor in the Department of Theoretical Physics of Kazan State University. The High Attestation Committee from Moscow confirmed officially by Professor's Diploma his Full Doctorate and Professor Status in year 1997.

In November of 1993 he was invited by Prof. F. Mainardi to read lectures in Bologna University, Italy, in the area of mathematical physics of fractional calculus. This direction in physics was quite new one and established new relationship between fractal physics and fractional calculus.

Prof. Nigmatullin is working as a contracting professor in Kazan National Research Technical University (KNRTU-KAI). His scientific publications and activities are well known among the specialists working in dielectrics and physics of fractals not only in ex-Soviet Union but in the West as well. He collaborates actively with the scientists from many countries—Great Britain, France, Israel, Turkey, Japan and PR of China.

Under his direct supervision 7 postgraduate students in Kazan Federal University have defended successfully their PhD theses, and one of them Dr. V. Toboev received the degree of Doctor of biophysics.

Recently the American Biographical Institute selected his biography in the annual books "The Contemporary Who's Who" (Who's Making a Difference) 2002/2003, 2007/2008 and 2010/2011 years. In 2012, at the conference "Nonlinear Science and Complexity" (August, Budapest) he received the G.M. Zaslavsky award for the solution of the Prony problem.

He has more than 250 publications in different journals indexed in Scopus and Web of Science databases, and is well-cited scientist among other leading Russian scientists actively working in the modern science. In accordance with the ISI (International Scientific Institute) version his total citation index CI tot = 2240, and the Hirsch index h = 24.

Each year Prof. Nigmatullin receives many invitations to visit international universities for reading lectures related with his personal research. He visited Japan (2007), Turkey (2008/2009), PR of China (Guangzhou 2010/2012), Norway (2013). In 2014, he read lectures in Shandong University (Jinan city, PRC). At the recent conferences "New Trends in Science and Technology" and "Fractional Derivatives and their Applications" (November 2008, Ankara, Turkey) and in the 4-th conference of "Nonlinear Science and Complexity" (August 2012, Hungary Budapest) he received awards for his contribution in the development of new methods in signal/noise analysis and the methods of fractional calculus for analysis of different complex systems.

Now he is actively working in two directions of physics:

- 1. Dielectric spectroscopy, fractal geometry and fractional calculus.
- 2. Development of original noninvasive methods for "reading" of different random sequences in complex and nonlinear systems.

Among his numerous works, let us mention his valuable surveys and research articles published in our journal "Fract. Calc. Appl. Anal.":

- A.A. Khamzin, R.R. Nigmatullin, I.I. Popov, B.A. Murzaliev, Microscopic Model of Dielectric  $\alpha$ -Relaxation in Disordered Media, Vol. **16**, No 1 (2013), 158–170.
- R.R. Nigmatullin, D. Baleanu, New Relationships Connecting a Class of Fractal Objects and Fractional Integrals in Space, Vol.  $\bf 16,$  No 4 (2013), 911–936.
- A.A. Khamzin, R.R. Nigmatullin, I.I. Popov, Justification of the Empirical Laws of the Anomalous Dielectric Relaxation in the Framework of the Memory Function Formalism, Vol. 17, No 1 (2014), 247–258.

On behalf of the FCAA Editorial Board we wish to Prof. R.R. Nigmatullin strong health, new perspective results in his research area and further contributions in favor of the FC community.

## 4. 65th Anniversary of Professor Stepan Tersian

Prof. Stepan Agop Tersian was born September 6, 1952, in the town of Ruse. As a pupil in the secondary school, he was winner in many mathematical competitions and represented Bulgaria 2 times in the national team for the International Mathematical Olympiads, 1969 and 1970. After graduating in Sofia University, he returned to his town and served in the Ruse University - Bulgaria, passing through all positions from Assistant Professor to Full Professor, Director of the Centre for Mathematics, Vice Dean, Chief of Depts. on Mathematical Analysis and Mathematics. He is involved also in many administrative duties at national level like Accreditation commissions and juries, Specialized Council for Mathematics and Informatics, National Science Fund, Union of Bulgarian Mathematicians, etc. Prof. Tersian took part and conducted several international projects, visited many foreign universities to give lectures and plenary talks, organized many conferences in the areas of his research.

His main research interests are in variational and topological methods for differential and difference equations, nonlinear analysis, optimization theory, applications of computer algebra systems in their studies and in education, etc., with PhD. thesis: "On the periodic solutions of some classes of semilinear differential equations", 1984; and Dr.Sc. thesis: "Minimax theorems and applications to differential equations", 2001.

Prof. Tersian is author of the 3 books:

- I.P. Stavroulakis, S.A. Tersian, *Partial Differential Equations, An Introduction with Mathematica and Maple*, 1st Ed., Singapore, World Scientific, 1999, ISBN 9810238916.
- M.R. Grossinho, S.A. Tersian, An Introduction to Minimax Theorems and their Applications to Differential Equations, Dodrech/Boston/London, Kluwer Academic Publishers, 2001, ISBN 0-7923-6832-0.

– I.P. Stavroulakis, S.A. Tersian, *Partial Differential Equations, An Introduction with Mathematica and Maple*, 2nd Ed., Singapore, World Scientific, 2004, ISBN 981-238-815-X.

He has also more than 100 papers in journals and proceedings of international conferences, several of which are among the top most downloaded from the sites of prestigious publishers. His Hirsh indices are h=18 in Google Scholar, and h=13 according to Scopus and Web of Science databases.

In the recent years, Prof. Stepan Tersian extended his interests and studies also to differential and difference equations of fractional order, and started actively to collaborate with our journal "Fract. Calc. Appl. Anal.", as author and member of Editorial Board.

Let us list some of his recent publications in Fract. Calc. Appl. Anal.:

- G. Bonanno, R. Rodríguez-López, S. Tersian, Existence of Solutions to Boundary Value Problem for Impulsive Fractional Differential Equations, Vol. 17, No 3 (2014), 717–744.
- R. Rodríguez-López, S. Tersian, Multiple Solutions to Boundary Value Problem for Impulsive Fractional Differential Equations, Vol. 17, No 4 (2014), 1016–1038.
- D. Averna, S. Tersian, E. Tornatore, On the Existence and Multiplicity of Solutions for Dirichlet's Problem for Fractional Differential Equations, Vol. **19**, No 1 (2016), 253–266.
- L. Li, J. Sun, S. Tersian, Infinitely Many Sign-Changing Solutions for the Brézis-Nirenberg Problem Involving the Fractional Laplacian, Vol. **20**, No 5 (2017), 1146–1164.
- Prof. Tersian is deeply involved in taking care for talented students, their preparation for competitions and olympiads, advised 5 M.Sc. and 3 PhD students.

Among his hobbies, are funny stories and pics related to Maths; taking photos, treating them by geometrical tools and arranging galleries of them. More on his scientific and other activities can be seen at:

https://scholar.google.com/citations?user=JSOIM\_YAAAAJ&hl=en; https://www.researchgate.net/profile/Stepan\_Tersian; https://imaginary.org/users/stepan-tersian.

On behalf of the FCAA Editorial Board, and on my personal behalf (as his classmate in the secondary school, taking part in the same mathematical olympiads), I would like to wish Stepan and his family health, continuous energy and new interesting results and useful collaborations in science and education.

#### 5. 60th Anniversary of Professor Jose A. Tenreiro Machado

Prof. J. A. Tenreiro Machado was born on October 6, 1957. He graduated with 'Licenciatura' (1980), PhD. (1989) and 'Habilitation' (1995), in Electrical and Computer Engineering at the University of Porto, Portugal. During 1980-1998 he worked at the Dept. of Electrical and Computer Engineering of the University of Porto. Since 1998 he works at the Institute of Engineering, Polytechnic Institute of Porto, Dept. of Electrical Engineering.

His research interests include Fractional calculus, Nonlinear dynamics, Complex systems, Modeling, Entropy, Control, Evolutionary computing, Genomics, Robotics, Intelligent transportation systems, Economy, and Finance. His publications include 96 papers in parts or chapters of international books, 327 papers in international journals, 362 papers at international conferences, and 7 technical and educational books. His editorial activity accounts for 38 special issues in journals, and participation in the editorial boards of 30 scientific journals. Among them, we like to emphasize his activities and support to our journal "Fract. Calc. Appl. Anal.", as one of its Associate Editors.

Some selected publications:

- J.A. Tenreiro Machado, Theory of Fractional Integrals and Derivatives: Application to Motion Control, *ICRAM '95-IEEE/IFAC/ASME/JSME Internat. Conf. on Recent Advances in Mechatronics*, 14-16 Aug. 1995, Istanbul, Turkey, 1086–1091.
- J.A. Tenreiro Machado, Analysis and Design of Fractional-Order Digital Control Systems, *Systems Analysis Modelling Simulation*, Vol. **27**, Issue 2-3 (1997), 107–122.
- J.A. Tenreiro Machado, Fractional-Order Derivative Approximations in Discrete-Time Control Systems, *Systems Analysis Modelling Simulation*, Vol. **34** (1999), 419–434.
- J.A. Tenreiro Machado, A.M.S. Galhano, Statistical Fractional Dynamics, *ASME J. of Computational and Nonlinear Dynamics*, Vol. **3**, Issue 2 (2008), 021201-1–021201-5.
- J.A. Tenreiro Machado, Entropy Analysis of Integer and Fractional Dynamical Systems, *Nonlinear Dynamics*, Vol. **62**, Nos 1-2 (2010), 371–378.
- J.A. Tenreiro Machado, Optimal Tuning of Fractional Controllers Using Genetic Algorithms, *Nonlinear Dynamics*, Vol. **62**, Nos 1-2 (2010), 447–452.
- J.A. Tenreiro Machado, Fractional Dynamics of a System with Particles Subjected to Impacts, *Commun. in Nonlinear Sci. and Numer. Simulations*, Vol. **16**, Issue 12 (2011), 4596–4601.

- J. Tenreiro Machado, V. Kiryakova, F. Mainardi, Recent History of Fractional Calculus, *Commun. in Nonlinear Sci. and Numer. Simulations*, Vol. **16**, No 3 (2011), 1140–1153.
- J.A. Tenreiro Machado, Exploiting Sensor Redundancy for the Calculation of Fractional Derivatives in the Presence of Noise, *Signal Processing*, Vol. **92**, Issue 1 (2012), 204–209.
- J.A. Tenreiro Machado, A.M.S.F. Galhano, Fractional Order Inductive Phenomena Based on the Skin Effect, *Nonlinear Dynamics*, Vol. 68, Nos 1-2 (2012), 107–115.
- J. Tenreiro Machado, Accessing Complexity from Genome Information, Commun. in Nonlinear Sci. and Numer. Simulations, Vol. 17, Issue 6 (2012), 2237–2243.
- J.A. Tenreiro Machado, Complex Evolution of a Multi-particle System, *Applied Mathematical Modelling*, Vol. **37**, Issue 22 (2013), 9203–9214.
- J. Tenreiro Machado, Optimal Controllers with Complex Order Derivatives, J. of Optimization Theory and Applications, Vol. **156**, Issue 1 (2013), 2–12.
- J.A. Tenreiro Machado, Fractional Generalization of Memristor and Higher Order Elements, *Commun. in Nonlinear Sci. and Numer. Simulations*, Vol. **18**, Issue 12 (2013), 264–275.
- J.A. Tenreiro Machado, Fractional Calculus: Models, Algorithms, Technology, *Discontinuity, Nonlinearity, and Complexity*, Vol. **4**, No 4 (2015), 383–389, A3-Poster3.

Especially, among the top-cited and attracting many readers, are his surveys, posters and initiated round table discussions, published in our journal *Fract. Calc. Appl. Anal.*:

- J.A. Tenreiro Machado, A Probabilistic Interpretation of the Fractional-Order Differentiation, Vol. **6**, No 1 (2003), 73–80.
- J.A. Tenreiro Machado, V. Kiryakova, F. Mainardi, A Poster About the Recent History of Fractional Calculus, Vol. **13**, No 3 (2010), 329–334, A3-Poster1.
- J.A. Tenreiro Machado, V. Kiryakova, F. Mainardi, A Poster About the Old History of Fractional Calculus, Vol. **13**, No 4 (2010), 447–454, A3-Poster2.
- J. Tenreiro Machado, And I Say to Myself: "What a Fractional World!", Vol. 14, No 4 (2011), 635–654.
- J. Tenreiro Machado, A.M. Galhano, J.J. Trujillo, Science Metrics on Fractional Calculus Development since 1966, Vol. **16**, No 2 (2013), 479–500.
- D. Valério, J. Tenreiro Machado, V. Kiryakova, Some Pioneers of the Applications of Fractional Calculus, Vol. 17, No 2 (2014), 552–578.

- J. Tenreiro Machado, A.M. Lopes, F.B. Duarte, M.D. Ortigueira, R.T. Rato, Rhapsody in Fractional, Vol. 17, No 4 (2014), 1188–1214.
- J.A. Tenreiro Machado, A.M. Lopes, Analysis of Natural and Artificial Phenomena Using Signal Processing and Fractional Calculus, Vol. **18**, No 2 (2015), 459–478.
- J. Machado, F. Mainardi, V. Kiryakova, Fractional Calculus: Quo Vadimus? (Where Are We Going?), Contributions to Round Table Discussion held at ICFDA 2014, Vol. 18, No 2 (2015), 495–526.
- J.A. Tenreiro Machado, A.M. Lopes, Fractional State Space Analysis of Temperature Time Series, Vol. 18, No 6 (2015), 1518–1536.
- J.A. Tenreiro Machado, F. Mainardi, V. Kiryakova, T. Atanacković, Fractional Calculus: D'où Venons-Nous? Que Sommes-Nous? Où Allons-Nous?, Contributions to Round Table Discussion held at ICFDA 2016, Vol. 19, No 5 (2016), 1074–1104.
- J.A. Tenreiro Machado, V. Kiryakova, The Chronicles of Fractional Calculus, Vol. **20**, No 2 (2017), 307–336.

Along with the above mentioned titles, the participants of many conferences related to FC topics, have been attracted by Prof. Machado's talks and initiated discussions, with provoking titles and ideas expired from Arts (popular songs, books, paintings, movies, ...) and on strange sounding areas of applications of FC.

More details on his publication activities, can be found at: http://ave.dee.isep.ipp.pt/~jtm/.

Let us wish Prof. JA Tenreiro Machado to continue with same energy and enthusiasm to "sell" FC among mathematicians, engineers and applied scientists, and to him and his family health and prosperity.

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