

HISTORICAL SURVEY

THE CHRONICLES OF FRACTIONAL CALCULUS

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*Dedicated to the 20th year of our journal :
Fract. Calc. Appl. Anal., since 1998*

Abstract

Since the 60s of last century Fractional Calculus exhibited a remarkable progress and presently it is recognized to be an important topic in the scientific arena. This survey analyzes and measures the evolution that occurred during the last five decades in the light of books, journals and conferences dedicated to the theory and applications of this mathematical tool, dealing with operations of integration and differentiation of arbitrary (fractional) order and their generalizations.

MSC 2010: Primary 26A33; 01A60, 01A61, 01A67; Secondary 34A08, 35R11, 60G22

Key Words and Phrases: fractional calculus, development, fractional order differential equations, fractional order mathematical models, applications

1. Introduction

Fractional Calculus (FC) started with the ideas of Gottfried Leibniz by the end of the XVII century and had been developed progressively up to now. During the recent decades FC, as an extension of the classical Calculus, attracted the attention of many researchers in several areas, namely mathematics, physics, engineering, biology, finance, economy, chemistry and social sciences. The reason is that the differential and integral equations and dynamical systems of fractional order can model mathematically the phenomena of Nature and Society more adequately than these restricted to integer order.

The evolution of FC was analyzed in several survey papers and round tables discussions [103, 104, 105, 101, 102, 107, 108] revealing a considerable and sustained progress. Therefore, it is important to collect the most recent information not only to keep a precise record, but also to monitor the present day development. Bearing these ideas in mind, this survey intends to highlight the major documents and events in the area of FC that took place since 1974 up to the present year of 2017. Some preliminary information already available for years 2017 and 2018 is also included.

The lists of information as those assembled in this paper, can never be complete. Moreover, there must be selective decisions. Therefore, we apologize for any possible omissions. On the other hand, we do not give any judgment on the references and we limit ourselves to simple citations.

The paper is organized as follows. Section 2 lists the books edited and books with author(s) addressing FC. Section 3 reports list of conferences that were (or are planned soon) devoted, entirely or partly, to FC. Section 4 contains a list of journals specially dedicated to FC.

2. Books published on Fractional Calculus

In this section we collect the books with author (monographs) and books with editor (collected papers, proceedings) published since the 60s of 20th century. Their list is presented in Table 1, in accordance to References list. At the present date the authors are aware of some works in press for the end of 2016, also for 2017 and 2018. Therefore, those works are also included.

The evolution of FC under the light of indices such as number of published books with author and books edited may be discussible as any other measure of scientific and technological progress, see e.g. [96]. Yet, the data collected and represented in Figure 1 are unequivocal.

3. Conferences devoted to Fractional Calculus

In this section, in Tables 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 13, we list the conferences dedicated, entirely or partly (with special sessions), to FC during the last decades. We have included also some information that is already available for years 2017 and 2018.

4. Journals specialized in Fractional Calculus

Finally, we mention a list of journals specialized in FC, in order of their appearance. Since their names are somewhat similar, to distinguish, it is important always to refer / cite by exact wording and abbreviations.

Journal of Fractional Calculus (JFC); ISSN 0918-5402;
 Publisher: Descartes Press, Japan;
 Ed.-in-Chief: Katsuyuki Nishimoto (Japan);
 Starting year: Vol. 1 (1992), info available for Vol. 21-24 (2002),
 next information n/a at Internet.

Fractional Calculus and Applied Analysis (FCAA);
 ISSN: 1311-0454 (print), ISSN: 1314-2224 (online);
 Publishers: Institute of Math. and Inform. - Bulg. Acad. Sci. (1998-2010),
 Versita and Springer (2011-2014), De Gruyter (since 2015);
 Website (current): <http://www.degruyter.com/view/j/fca>;
 Ed.-in-Chief: Virginia Kiryakova (Bulg. Acad. Sci., Bulgaria);
 Starting year: Vol. 1 (1998), current Vol. 20 (2017); 6 issues/ year;
 Abstracting & Indexing: Thomson Reuters - JCR, SCI (JIF=2.974 / 2.245 /
 2.246), Elsevier - Scopus, SCImago (SJR=2.106 / 1.433 / 1.602).

Communications in Fractional Calculus (CFC); ISSN: 2218-3892;
 Publisher: Asian Academic Publisher Ltd, China;
 Website was: http://www.nonlinearscience.com/journal_2218-3892.php
 (now n/a), some current available traces:
<http://en.journals.sid.ir/JournalList.aspx?ID=24970>,
<http://blog.sciencenet.cn/blog-298018-343352.html>;
 Editor: Lan Xu;
 Starting year: Vol. 1 (2010), next information n/a.

Fractional Differential Calculus (FDC, earlier: Fractional Differential Equations); ISSN: 1847-9677;
 Publisher: Ele-Math (Element d.o.o.), Croatia;
 Website: <http://fdc.ele-math.com/submission>;
 Current Eds.-in-Chief: Mokhtar Kirane (Univ. de La Rochelle, France),
 Josip Pečarić (Univ. of Zagreb, Croatia),
 Sabir Umarov (Univ. of New Haven, USA);
 Starting year: Vol. 1 (2011), current Vol. 7 (2017); 2 issues / year.

Journal of Fractional Calculus and Applications (JFCA);
 ISSN: 2090-584X (print), ISSN: 2090-5858 (print);
 Publisher: South Valley University, Egypt;
 Website: <http://fcag-egypt.com/journals/jfca/>;
 Managing Eds: A.M.A. El-Sayed (Alexandria University, Egypt), S.Z. Rida
 (South Valley University, Egypt);
 Starting year: Vol. 1 (2011), current Vol. 8 (2017); 2 issues / year;
 Abstracting and Indexing: see at
http://fcag-egypt.com/journals/jfca/Abstracting_and_Indexing.php.

Progress in Fractional Differentiation and Applications (PFDA);
 ISSN 2356-9336 (print), ISSN 2356-9344 (online);
 Publisher: Natural Sciences Publ., USA;
 Website: <http://naturalspublishing.com/show.asp?JorID=48&pgid=0>;
 Ed.-in-Chief: Dumitru Baleanu (Çankaya University, Turkey);
 Starting year: Vol. 1 (2015), current Vol. 3 (2017); 4 issues / year.

Electronic Newsletter “FDA Express”
 (Fractional Derivative and Applications Express)
 distributed *monthly* by e-mail and available online;
 Publisher: Institute of Soft Matter Mechanics, Hohai University, China;
 Website: <http://em.hhu.edu.cn/fda/>;
 Editor: Wen Chen, Team: Hongguang Sun, Guofei Pang, Xindong Hei,
 Yingjie Liang and Lin Chen (China);
 Starting year: Vol. 1 (2011), current Vol. 22 (2017);
 3 vols (12 issues) / year.

Special thanks are due to Editors of this Newsletter, for dissemination
 the topics of FC, timely announcing recent publications and events in the
 area, in favor of the FC community.

Several special and topical issues of many other prestigious journals are
 dedicated to the topic of FC and its applications.

Also, there are many websites and blogs created by colleagues fond of
 FC, where useful information, files, links, etc. are available.

More details on some special issues of journals, courses, tutorials, re-
 sources from Matlab, Wolfram MathWorld, other packages on computa-
 tional aspects for FC, patents, etc., have been provided in our previous
 survey of 2011, [105].

Since 2010, the MSC includes besides 26A33, many new positions for
 fractional calculus and related areas, as:

30C45, 30E15, 31C60, 33C60, 33E12, 33E30, 34A08, 34A25, 34K37,
 35R11, 42A45, 42C10, 44A20, 44A35, 44A40, 45E10, 60G22, 93B60, 93D06,
 etc.

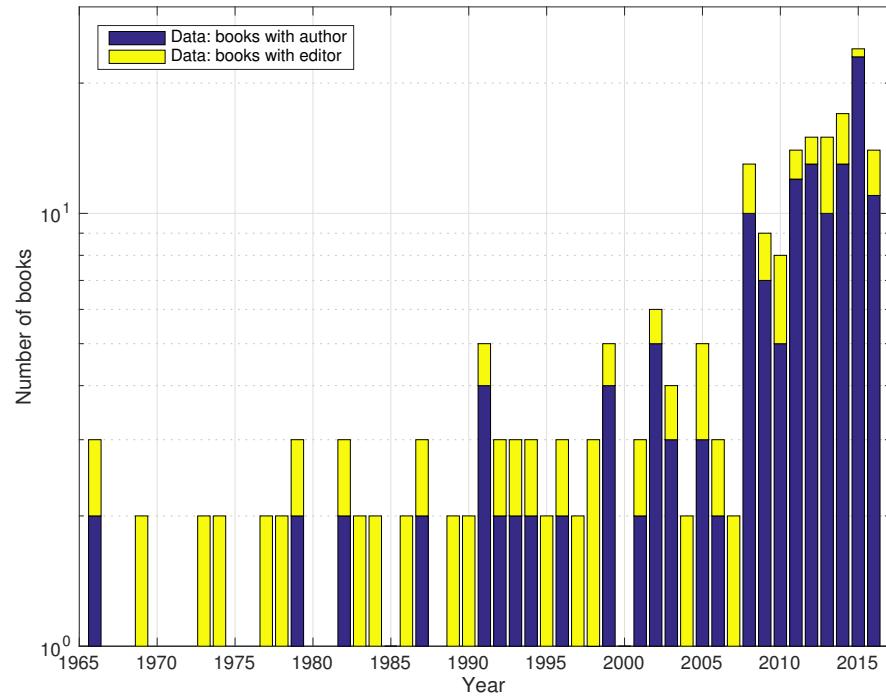


FIGURE 1. Number of books with author and with editor versus year, during the period 1965-2016.

According to the information collected in Figure 1 and Table 1, there are currently at least 167 books with author(s) and 38 edited books, or more than 205 books on the topics related to Fractional Calculus.

On next page it is exposed:

TABLE 1. Published books with author and with editor since the 60s.

Year	Books with author	Books with editor
1960-1979	[48, 179, 32, 120, 143, 164, 121, 180, 124]	[169]
1980-1989	[183, 184, 146, 136, 162, 176, 137, 138]	[125]
1990	[186]	[68]
1991	[140, 139, 147, 61]	
1992	[182, 33, 177, 130]	[80]
1993		
1994	[206, 85]	
1995	[148]	[172]
1996	[141, 170]	
1997	[34, 118]	
1998	[128]	[173, 123]
1999	[158, 150, 193, 199]	
2000	[67]	
2001	[9, 13]	[16]
2002	[201, 157, 54, 73, 72]	
2003	[198, 154, 134]	
2004	[83]	
2005	[74, 163, 69]	[127, 49]
2006	[110, 84]	
2007		[188, 174]
2008	[210, 190, 115, 119, 205, 204, 196, 14, 24, 43]	[131, 81, 88]
2009	[6, 90, 122, 27, 89, 77, 155]	[109, 17]
2010	[111, 31, 133, 165, 46]	[98, 106, 63]
2011	[156, 144, 87, 65, 126, 92, 3, 187, 207, 78, 44, 93]	[86, 18]
2012	[15, 8, 142, 1, 99, 75, 178, 114, 214, 45, 195, 208, 191]	[82, 168]
2013	[37, 56, 152, 71, 192, 70, 189, 36, 21, 202]	[40, 132, 26, 94, 4]
2014	[66, 212, 116, 10, 11, 76, 79, 129, 149, 2, 60, 22, 55]	[41, 42, 39, 52]
2015	[160, 159, 145, 112, 7, 59, 5, 194, 51, 62, 12, 117, 175, 151, 20, 95, 200, 166, 171, 19, 209, 113, 29]	[91]
2016	[28, 35, 213, 38, 50, 64, 135, 161, 97, 100, 153]	[167, 47, 181]
2017	[185, 30, 203, 53, 197, 25, 58, 57]	[23]
2018	[211]	

TABLE 1.

Date	Conference	Location	Organizing Committee
June/1974 Aug/1984	Fractional Calculus and Its Applications Fractional Calculus	University of New Haven, USA Ross Priory, University of Strathclyde, Scotland	Bertram Ross Adam C. McBride, Gary F. Roach
29/May- 1/June/1989	Fractional Calculus and its Applications	Center of Nihon University, Tokyo	Katsuyuki Nishimoto
3-4/Dec/1998	Systèmes Différentiels Fractionnaires: Modèles, Méthodes & Applications	ENST, Paris	
17/Nov/2006	Fractional Derivatives for Mechanical Engineering: State-of-the-Art and Applications	Conservatoire National des Arts et Métiers, Paris, France	Denis Matignon, Gérard Montseny et J.-F. Désir, F. Dubois, A. C. Galucio, Bourdet, D. Matignon, O. Thomas
4-7/Sept/2007	CFD'07 - 1st Classic and Fractional Dynamics on Continuous and Discontinuous Vector Fields	Las Vegas, Nevada, USA	Albert Luo, J. A. Tenreiro Machado
15-17/Oct/2007	SAFC07 - Symposium on Applied Fractional Calculus	Badajoz, Spain	Blas M. Vinagre (Chair), Luis Vázquez, Juan J. Trujillo, Santos Bravo, Concepción A. Monje, Ines Tejado
18-19/Sept/2008 30/Aug- 2/Sept/2009	Fractional Flows Workshop CFD'09 - 2nd Classic and Fractional Dynamics on Continuous and Discontinuous Vector Fields	Univ. of Warwick, Coventry, UK San Diego, California, USA	Niels Jacob Albert Luo, J. A. Tenreiro Machado
15-17/July/2010	1st Symp. on Fractional Order Dynamic Systems and Controls at the 2010 IEEE/ASME Intern. Conf. on Mechatronic and Embedded Systems and Appl.	Qingdao, ShanDong, China	Yan Li
19-21/Nov/2013	Intern. Res. and Develop. Conf. "Nigmatullin (Rashid Sh.) Raedings 2013"	Kazan, Russia	Yury Evdokimov, Raoul R. Nigmatullin
23-27/Sept/2013 3-5/June/2013	1st Brazilian Symp. on Fractional Calculus Int. Symposium on Fractional PDEs: Theory, Numerics and Applications	UNESP - Campus de Bauru, Brazil Salve Regina University, Newport, USA	Rubens de Figueiredo Camargo George Em Karniadakis, Jan Hesthaven, Ernest Roachman
24-29/ Aug./2014	Special Session "Fractional Systems and Signals" at IFAC World Congress	Cape Town, South Africa	Jocelyn Sabatier, Stéphane Victor
17-21/Oct/2016 2017	A Workshop on Future Directions in Fractional Calculus Research and Applications Workshop on Fractional PDEs: Theory, Algorithms and Applications, Institute for Pure & Applied Mathematics	Michigan State University, East Lansing, Michigan, USA University of California at Los Angeles, USA	Mark Meerschaert George Em Karniadakis, Francesco Mainardi, Mark Meerschaert, Jie Shen, Hong Wang

TABLE 2. FC conferences without periodicity

Date	Conference	Location	Organizing Committee	Chair Tech./ Progr. Committee
19-21/July/2004	FDA'04	Bordeaux, France	Chair: Alain Oustaloup, Co-Chair: D. Camon; Members: H. Guguen, P. Lanusse, R. Malti, P. Melchior, X. Moreau, L. Nivanen, J. Sabatier, J. Zaytoon	Chair: Stefan Sanko, Co-Chair: Alain Oustaloup
19-21/July/2006	FDA'06	Porto, Portugal	Chair: J. A. Tenreiro Machado, Members: Manuel F. Silva, Lino Figueiredo, Ramiro Barbosa, Alexandra Galhano	Chair: Stefan Sanko, Co-Chair: Blas M. Vinagre
5-7/Nov/2008	FDA'08	Ankara, Turkey	Chair: Dumitru Baleanu, Members: Yahya Kemal Baykal, Ozlem Defterli, Erdal Dinc, Lino Figueiredo, Serdar Ethem Hamamci, Halilun Ozaktas, Manuel Silva	Chair: J. A. Tenreiro Machado, Co-Chair: Alain Oustaloup, Wen Chen
18-20/Oct/2010	FDA'10	University of Extremadura, Badajoz, Spain	Chair: Blas M. Vinagre Jara, Members: Vicente Feliu Batlle, Santos Bravo Yuste, Inés Tejado Balsara, Antonio J. Calderón Godoy, Igor Podlubny, Ivo Petras, Tomas Skovranek, Dagmar Bednarova, Andrea Možisová	Chair: YangQuan Chen
14-17/May/2012	FDA'12	Hohai University, Nanjing, China	Chair: Wen Chen, Co-Chairs: Nobuyuki Shimizu, Jocelyn Sabatier, Jalil Sadati	Chair: Dumitru Baleanu, Co-Chairs: Riccardo Caponetto, Igor Podlubny, Mark M. Meerschaert
4-6/Feb/2013	FDA'13	Grenoble, France	General Chair: Olivier Sename, General Co-Chair: József Bokor, Co-Chair FDA:	
23-25/June/2014	ICFDA'14	Catania, Italy	J. Tenreiro Machado Chair: Riccardo Caponetto, Co-Chairs: G. Muscatto, A. Gallo, A. Pisano, G. Maione, Members: F. Sapuppo, L. Tiratosi	Chair: Virginia Kiryakova, Co-Chairs: Rudolf Gorenflo, Igor Podlubny, Luigi Fortuna, Teodor Atanackovic
18-20/July/2016	ICFDA'16	Novi Sad, Serbia	Chair: Dragana Spasic, Co-Chairs: Nenad Grahovac, Mihailo Lazarevic, Milan Radic, Miodrag Zigic	Chair: Teodor Atanackovic, Co-Chairs: Reyad El-Khazali, Virginia Kiryakova, J.A. Tenreiro Machado, Igor Podlubny
25-27/June/2018	ICFDA'18	Amman, Jordan	Chair: Shaker Momani, Co-Chairs: Reyad El-Khazali, Zaid Odibat, Eqap Rabea	Chair: Dumitru Baleanu, Co-Chairs: YangQuan Chen, Igor Podlubny, J. A. Tenreiro Machado, Virginia Kiryakova

TABLE 3. Workshop on Fractional Differentiation and its Applications (FDA, ICFDA), details at <http://www.icfda16.com/public/previous-events.php>

Date	Conference	Location	Organizing Committee	Chair	Tech./ Committee	Progr.
4-6/Nov/2009	FSS'09	Lisbon, Portugal	M. D. Ortigueira	Chair: Manuel Ortigueira, Co-Chairs: Blas Vinagre, J. Ten- reiro Machado, Juan J. Trujillo		
4-7/Nov/2011	FSS'11	Coimbra, Portugal	Filomena Canova, Jorge Barbosa, Nuno Ferreira, Deolinda Simões	Chair: J. Tenreiro Machado, Co-Chairs: M. D. Ortigueira, Blas Vinagre, Juan J. Trujillo		
24-26/Oct/2013	FSS'13	Ghent Uni- versity, Belgium	Amélie Chevalier, Cos- min Copot, Dana Copot, Robin De Keyser, Ab- hishek Dutta, Carina Impens, Clara Ionescu, Gerd Vandersteen, Sabine Van Huffel, Wendy Van Moer, Yu Zhong	Chair: Clara Ionescu, Co-Chair: Manuel Or- tigueira, Program Chair: J. Tenreiro Machado		
1-3/Oct/2015	FSS'15	Technical Univer- sity of Cluj- Napoca, Romania	Cristina Muresan, Eva H. Dulf, Roxana Both- Rusu, Bogdan Pop, Ioan Nascu, Ovidiu Prodan, Cristian Goia, Isabela Roxana Birs, Nicoleta Hodasz	Chair: Cristina I. Muresan, Co-Chairs: Eva H. Dulf, Roxana Both-Rusu, Ioan Nascu, Ovidiu Prodan		
9-11/Oct/2017	FSS'17	Lodz, Poland	Chair: Piotr Ostalczyk, Co-Chairs: Marcin Bakala, Wojciech Bi- eniecki, Dariusz W. Brzeziński, Piotr Duch, Jacek Nowakowski, Andrzej Romanowski	Chair: Manuel Duarte Ortigueira		

TABLE 4. International Symposium on Fractional Signals
and Systems (FSS)

Date	Conference	Location	Organizing Committee
2-6/Sept/2003	FDTA'03	Chicago, Illinois, USA	Om Agrawal, J. A. Tenreiro Machado, Jocelyn Sabatier
24-28/Sept/2005	FDTA'05	Long Beach, California, USA	Om P. Agrawal, J. A. Tenreiro Machado, Jocelyn Sabatier
4-7/Sept/2007	FDTA'07	Las Vegas, Nevada, USA	Om Agrawal, Jocelyn Sabatier, Dumitru Baleanu, Blas Vinagre, YangQuan Chen
30/Aug- 2/Sept/2009	FDTA'09	San Diego, California, USA	Om Prakash Agrawal, Dumitru Baleanu, YangQuan Chen, Jocelyn Sabatier, Blas M. Vinagre
28-31/Aug/2011	FDTA'11	Washington, DC, USA	YangQuan Chen, Dumitru Baleanu, Changpin Li, J. A. Tenreiro Machado, Jocelyn Sabatier, Blas M. Vinagre
8-10/July/2012	FDTA'12	Suzhou, China	YangQuan Chen, Changpin Li, Dingyu Xue, Yan Li
4-7/Aug/2013	FDTA'13	Portland, USA	Dumitru Baleanu, YangQuan Chen, Changpin Li, J. A. Tenreiro Machado, Jocelyn Sabatier, Blas M. Vinagre
10-12/Sept/2014	FDTA'14	Senigallia, Ancona, Italy	Dumitru Baleanu, J.A. Tenreiro Machado, YangQuan Chen, Jocelyn Sabatier, Changpin Li, Blas M. Vinagre
2-5/Aug/2015	FDTA'15	Boston, MA, USA	Dumitru Baleanu, J. A. Tenreiro Machado, YangQuan Chen, Jocelyn Sabatier, Changpin Li, Blas M. Vinagre
29-31/Aug/2016	FDTA'16	Auckland, New Zealand	Dumitru Baleanu, J. A. Tenreiro Machado, YangQuan Chen, Jocelyn Sabatier, Changpin Li, Blas M. Vinagre, Yan Li, Shandong
6-9/Aug/2017	FDTA'17	Cleveland, Ohio, USA	Dumitru Baleanu, J. A. Tenreiro Machado, YangQuan Chen, Jocelyn Sabatier, Changpin Li, Blas M. Vinagre

TABLE 5. Symposium on Fractional Derivatives and Their Application (FDTA)

Date	Conference	Location	Organizing Committee	Program Committee
June/2009	Rachunek Różniczkowy Niecałkowitych rzędów RRNR	Lodz University of Technology, Łódź, Poland	P. Ostalczyk	
2010	First Seminar Rachunek Różniczkowy Niecałkowitych rzędów RRNR	Częstochowa University of Technology, Częstochowa, Poland	M. Klimek	
	Second Seminar Rachunek Różniczkowy Niecałkowitych rzędów RRNR	Białystok University of Technology, Białystok, Poland	M. Busłowicz	
2011	Third Seminar Rachunek Różniczkowy Niecałkowitych rzędów RRNR	Warsaw University of Technology, Warsaw, Poland	A. Dzielinski	
2012	Fourth Seminar 5th $R^\alpha RNR$	AGH Univ. Sci. Tech., Kraków, Poland	W. Mitkowski, J. Baranowski K. Latawiec,	T. Kaczorek
4-5/July/2013	6th $R^\alpha RNR$	Opole, Poland	M. Lukasizyn, R. Stanisławski	
2014		Szczecin, Poland	S. Domęk, P. Dworak, K. Jaroszewski, J. Jonczyk, A. Lukomski, A. Kobylkiewicz,	T. Kaczorek
28-29/Aug/2015	7th $R^\alpha RNR$		M. Koconík A. Czornik, A. Babiarz, M. Niezabitowski	
20-21/Sept/2016	8th $R^\alpha RNR$	Silesian University of Technology, Zakopane, Poland	P. Ostalczyk, M. Bakala, W. Biernacki, D.W. Brzeziński, P. Duch, J. Nowakowski, A. Romanowski	T. Kaczorek, A. Czornik, J. Klamka
12-13/Oct/2017	9th $R^\alpha RNR$	Lodz University of Technology, Łódź, Poland		

TABLE 6. Conference on Non-integer Order Calculus and its Application ($R^\alpha RNR$)

Date	Conference	Location	Organizing Committee
12-17/Aug/1994	TMSF 1994	Sofia, Bulgaria	Peter Rusev, Ivan Dimovski, Shyam L. Kalla, Virginia Kiryakova, Lyubomir Boyadjiev
23-30/Aug/1996	TMSF 1996	Varna, Bulgaria	Peter Rusev, Ivan Dimovski, Shyam L. Kalla, Virginia Kiryakova, Lyubomir Boyadjiev
13-20/Aug/1999	TMSF 1999	Blagoevgrad, Bulgaria	Peter Rusev, Ivan Dimovski, Shyam L. Kalla, Virginia Kiryakova, Lyubomir Boyadjiev
15-21/Sept/2003 (at MASSEE)	TMSF 2003 (at MASSEE)	Borovets, Bulgaria	Peter Rusev, Ivan Dimovski, Shyam L. Kalla, Virginia Kiryakova et al.
27-31/Aug/2010 (as GFITA 2010)	TMSF 2010 (as GFITA 2010)	Sofia, Bulgaria	Virginia Kiryakova, Shigeyoshi Owa
20-23/Oct/2011	TMSF 2011	Sofia, Bulgaria	Virginia Kiryakova, Georgi Dimkov, Jordanka Panueva-Konovska, et al.
7-10/July/2014 (at MDS 2014)	TMSF 2014 (at MDS 2014)	Sofia, Bulgaria	Virginia Kiryakova, Georgi Dimkov, Jordanka Panueva-Konovska, Emilia Bazhleкова, et al.
27-30/Aug/2017	TMSF 2017	Sofia, Bulgaria	Virginia Kiryakova, Stepan Tersian, Emilia Bazhleкова, Jordanka Paneva-Konovska

TABLE 7. International conference Transform Methods and Special Functions (TMSF), details at <http://www.math.bas.bg/~tmsf>

Date	Conference	Location	Organizing Committee
14-18/Sept/1999	AMADE 1999	Minsk, Belarus	Anatoly A. Kilbas et al.
15-19/Feb/2001	AMADE 2001	Minsk, Belarus	Anatoly A. Kilbas et al.
4-9/Sept/2003	AMADE 2003	Minsk, Belarus	Anatoly A. Kilbas et al.
13-19/Sept/2006	AMADE 2006	Minsk, Belarus	Anatoly A. Kilbas et al.
14-19/Sept/2009	AMADE 2009	Minsk, Belarus	I. V. Gaishun, M. V. Dubatovskaya, A. A. Kilbas, S. V. Rogosin, M. A. Zhuravkov
12-17/Sept/2011	AMADE 2011	Minsk, Belarus	Sergei V. Rogosin et al.
10-15/Sept/2012	AMADE 2012	Minsk, Belarus	Sergei V. Rogosin et al.
14-19/Sept/2015	AMADE 2015	Minsk, Belarus	Sergei V. Rogosin et al.

TABLE 8. International conference on Analytic Methods of Analysis and Differential Equations (AMADE), details at <http://www.amade.bsu.by>

Date	Conference	Location	Organizing Committee
7-12/Aug/2005	FDTA-ENOC 2005	Eindhoven, The Netherlands	J. A. Tenreiro Machado, Om P. Agrawal, Jocelyn Sabatier
30/June- 4/July/2008	FDTA-ENOC 2008	Saint Petersburg, Russia	J. A. Tenreiro Machado, Alexander Belyaev, Om Agrawal
24-29/July/2011	FDTA-ENOC 2011	Rome, Italy	J. A. Tenreiro Machado, Alexander Belyaev, Om P. Agrawal
6-11/July/2014	FDTA-ENOC 2014	Vienna, Austria	Clara Ionescu, J. Ten- reiro Machado, Riccardo Caponetto, Pierre Mel- chior
25-30/June/2017	FDTA-ENOC 2017	Budapest, Hungary	Riccardo Caponetto, Clara Ionescu, Pierre Melchior

TABLE 9. Mini-Symposium: Fractional Derivatives and Their Applications (FDTA), at EUROMECH Nonlinear Dynamics Conference (ENOC)

Date	Conference	Location
3-4/Oct/2001	1st SDNE	LAP-ENSEIRB Bordeaux, France
28-29/March/2002	2nd SDNE	LAII-ESIP Poitiers, France
24-25/Oct/2002	3rd SDNE	RCCyN Nantes, France
28-29/March/2003	4th SDNE	LAP-ENSEIRB Bordeaux, France
16-17/Oct/2003	5th SDNE	LAP-ENSEIRB Bordeaux, France
25-26/March/2004	6th SDNE	ENIT Tarbes, France
27-28/March/2003	7th SDNE	LeMans, France
24-25/Nov/2005	8th SDNE	Bordeaux, France
6/Nov/2006	9th SDNE	Paris, France

TABLE 10. Action thématique “Les systèmes à dérivée non entière” (SDNE)

References

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Date	Conference	Location	Organizing Committee
24-28/April/2011	OTHA 2011	Rostov-on-Don, Russia	Alexey N. Karapetyants et al.
22-26/April/2012	OTHA 2012	Rostov-on-Don, Russia	Stefan G. Samko, Alexey N. Karapetyants et al.
	OTHA 2013	Rostov-on-Don, Russia	Stefan G. Samko, Alexey N. Karapetyants et al.
2-6/June/2013	OTHA 2014	Rostov-on-Don, Russia	Stefan G. Samko, Alexey N. Karapetyants et al.
27/Apr/- 1/May/2014	OTHA 2015	Rostov-on-Don, Russia	Stefan G. Samko, Alexey N. Karapetyants et al.
26/Apr- 1/May/2015	OTHA 2016	Rostov-on-Don, Russia	Alexey N. Karapetyants et al.
14-19/April/2016	OTHA 2017	Rostov-on-Don, Russia	Alexey N. Karapetyants, Stefan G. Samko et al.
23-28/April/2017	OTHA 2017	Rostov-on-Don, Russia	

TABLE 11. International Conference Modern Methods, Problems and Applications of Operator Theory and Harmonic Analysis (OTHNA), details at <http://otha.sfedu.ru/conf2017/>

Date	Conference	Location	Organizing Committee
19/April/2005	1st FCD	Utah State University, Logan, USA	YangQuan Chen
3/Sept/2007	2nd FCD	Utah State University, Logan, USA	YangQuan Chen
24/April/2009	3rd FCD	Utah State University, Logan, USA	YangQuan Chen
22/Aug/2011	4th FCD	Utah State University, Logan, USA	YangQuan Chen
3/July/2012	5th FCD	Instituto Superior Técnico, Lisbon, Portugal	Igor Podlubny, Manuel Duarte Ortigueira, Duarte Valério
4/April/2013	6th FCD	Technical University of Kosice, BERG Faculty, Slovakia	Igor Podlubny, Blas Vinagre, Duarte Valério, Tomas Skovranek
13/June/2013	7th FCD	University of California, Merced, USA	YangQuan Chen
2/June/2014	8th FCD	University of California, Merced, USA	YangQuan Chen
19/Dec/2014	9th FCD	South China University of Technology, Guangzhou, China	Caibin Zeng
5/Jan/2015	10th FCD	Northeastern University, China	Dingyu Xue, Dali Chen
6/July/2015	11th FCD	University of California, Merced, USA	YangQuan Chen
27/June/2016	12th FCD	Beijing Jiao Tong University, China	Yongguang Yu
13/July/2016	13th FCD	Nanjing Institute of Technology, China	Hongsheng Li, Jiacao Huang

TABLE 12. Fractional Calculus Day (FCD)

Date	Conference	Location	Organizing Committee
23-26/May/2000	ICCC 2000	High Tatras, Slovak Rep.	Dusab Malindzak, Karol Kostur (SR)
22-25/May/2001	ICCC 2001	Krynica, Poland	Bogdan Sapiński
May/2002	ICCC 2002	Czech Rep.	n/a
26-29/May/2003	ICCC 2003	High Tatras, Slovak Rep.	Igor Podlubný
25-28/May/2004	ICCC 2004	Zakopane, Poland	Bogdan Sapiński (PL)
24-27/May/2005	ICCC 2005	Miscolc, Hungary	Lajos Besenyei (Univ. of Miskolc)
29-31/May/2006	ICCC 2006	Ostrava, Czech Rep.	Vladimír Kebo (VŠB-TU Ostrava)
24-27/May/2007	ICCC 2007	High Tatras, Štrbske Pleso, Slovak Rep.	Igor Podlubný (Tech. Univ. Košice)
25-28/May/2008	ICCC 2008	Univ. of Craiova, Romania	Dan Popescu (RO)
/May/2009	ICCC 2009	Poland	n/a
26-28/May/2010	ICCC 2010	Eger, Hungary	Jozsef Vásárhelyi
25-28/May/2011	ICCC 2011	Velke Karlovice, Czech Rep.	Radim Farana (VŠB-Tech. Univ. of Ostrava)
/May/2012	ICCC 2012	Slovak Rep.	n/a
26-29/May/2013	ICCC 2013	Kraków, Poland	Jacek Snamina (AGH Univ. Sci. Tech., PL)
28-30/May/2014	ICCC 2014	Velke Karlovice, Czech Rep.	Radim Farana (VŠB-Tech. Univ. of Ostrava)
27-30/May/2015	ICCC 2015	Szilvásvárad, Hungary	Blake Lloyd (IEEE IAS, Iris Power Ltd)
29/May/- 1/June/2016	ICCC 2016	High Tatras, Tatranska Lomnica, Slovak Rep.	Ivo Petrás (IEEE, Tech. Univ. Košice)
28-31/May/2017	ICCC 2017	Sinaia, Romania	Dan Popescu (IEEE, Univ. Craiova)

TABLE 13. International Carpathian Control Conference (ICCC), details at <http://www.icc-conf.cz/>

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