International Society of Difference Equations

ISDE

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Newsletter of the International Society of Difference Equations

INTERNATIONAL SOCIETY OF
DIFFERENCE EQUATIONS

http://isdeds.com

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Edited by Małgorzata Guzowska
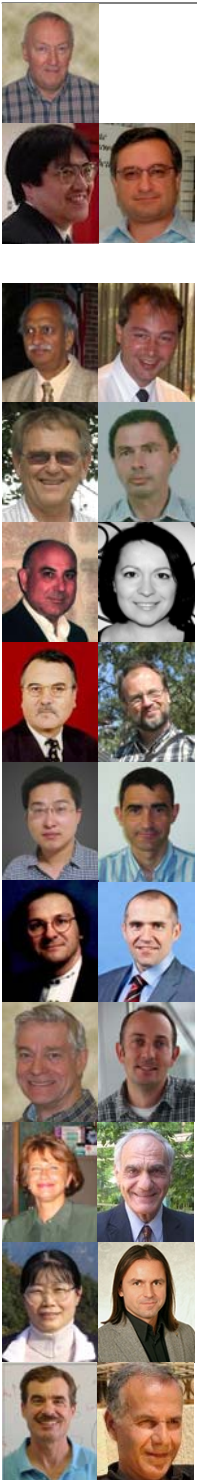
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A Letter from the President

ISDE

May 5, 2015

Board Elections

Our society is electing the new ISDE Board of Directors. The new Board will begin its duties on August 1, 2015 and continue for two years. The polls have opened this morning (May 5, 2015) and will close after 7 days on May 12, 2015. I would like to thank all three members of the Election Committee overseeing the elections, **Lynn Erbe** (Lincoln, Nebraska, USA), **Yoshihiro Hamaya** (Okayama, Japan), and **Hassan Sedaghat** (Richmond, Virginia, USA). Please take some time now to go to *http://web.mst.edu/ ~isde/ballot.html*. There are three ways to cast your vote (please pick only one of these three ways): 1. Select up to nine candidates on the form, at the bottom fill your name and e-mail address and click "Submit". Three copies of your vote will be sent to the Election Committee. 2. Print the ballot, select up to nine candidates, at the bottom fill your name and e-mail address, scan, and e-mail to all three Election Committee members. 3. Send your vote as an e-mail message (containing up to nine

candidates, your name, and your e-mail address) to all three Election Committee members. The e-mail addresses of the Election Committee members are *lerbe@un1.edu*, *hamaya@mis.ous.ac.jp*, and *hsedagha@vcu.edu*. This year, I have asked all society members to nominate one candidate each, and I have given to the Board a list of all candidates who have received more than just one nomination. The Board has approved the following outstanding slate of 20 nominees for the nine positions on the new Board of Directors: **Ravi Agarwal** (Kingsville, Texas, USA), **Martin Bohner** (Rolla, Missouri, USA), **Jim Cushing** (Tucson, Airzona, USA), **Ondřej Došlý** (Brno, Czech Republic), **Saber Elaydi** (San Antonio, Texas, USA), **Małgorzata Guzowska** (Szczecin, Poland), **István Győri** (Veszprém, Hungary), **Stefan Hilger** (Eichstätt, Germany), **Tongxing Li** (Linyi, Shandong, China), **Eduardo Liz** (Vigo, Spain), **Angelo Mingarelli** (Ottawa, Ontario, Canada), **Piotr Oprocha** (Kraków, Poland), **Allan Peterson**

(Lincoln, Nebraska, USA), **Christian Pötzsche** (Klagenfurt, Austria), **Alexandra Rodkina** (Kingston, Jamaica), **Robert Sacker** (Los Angeles, California, USA), **Yuming Shi** (Jinan, Shandong, China), **Stefan Siegmund** (Dresden, Germany), **Hal Smith** (Tempe, Arizona, USA), and **Ağacık Zafer** (Ankara, Turkey). These 20 candidates are from 11 different countries, another document of the fact that ISDE is a truly international and global society. You can see the pictures of the candidates on the left of this page and also on the ballot. By clicking on a candidate's name on the ballot, you will be taken to the homepage of the candidate (in a separate window) so that you may be able to obtain further information on that candidate through that link. Whichever of the three methods you choose, please be sure to never pick more than nine candidates as otherwise your vote will become invalid. The Election Committee, chaired by Lynn Erbe, will report the results of the elections to me, and then I will inform the society.

Martin Bohner

ISDE President

A Letter from the President

2015 Bernd Aulbach Prize

Five years ago, ISDE established the Bernd Aulbach Prize in order to honor the founding member and first President of the society, the late **Bernd Aulbach**, who passed away on January 14, 2005, now ten years ago. The prize is awarded every two years by the International Society of Difference Equations, for significant contributions to the areas of difference equations and/or discrete dynamical systems. The first two recipients of this prize were **Alexander Sharkovsky** (Kyiv, Ukraine) in 2011 and **Michał Misiurewicz** (Indianapolis, Indiana, USA) in 2013.

It is my pleasure and honor to announce to the society the third recipient of this prize, the winner of the 2015 Bernd Aulbach Prize, the most prestigious prize given by our society: Professor **Jean Mawhin** (Université Catholique de Louvain, Louvain-la-Neuve, Belgium). Jean Mawhin was born and raised in Belgium. He studied at the University of Liège, where he received his master degree (Licencié en sciences mathématiques) in 1964 and his PhD in 1969. From 1970 until 2008, he served as a professor of mathematics at the Catholic University of Louvain, Belgium. Jean Mawhin's mathematical life is centered around the areas of differential and difference equations, continuous and discrete dynamical systems with a continuing reference to topological and functional analytic methods, applications of fixed point principles, degree and critical point theory. The interaction of continuous and discrete phenomena plays a constant rôle in his mathematical œvre. Jean Mawhin is the author of about 400 papers and 10 books. He is also active in the history of mathematics and deals with the work of Henri Poincaré and Jean Leray. The official award ceremony will be held during this year's ICDEA conference in Białystok (Poland), July 19—25, 2015. As part of the prize ceremony, Professor Mawhin will deliver an invited lecture at ICDEA 2015.

I also take this opportunity to thank the five distinguished members of the Bernd Aulbach Prize Selection Committee, **Stefan Hilger** (Eichstätt, Germany), **Zuzana Došlá** (Brno, Czech Republic), **Saber Elaydi** (San Antonio, Texas, USA), **George Sell** (Minneapolis, Minnesota, USA), and **Alexander Sharkovsky** (Kyiv, Ukraine), for their hard work in evaluating this year's most outstanding group of nominees. I also would like to thank the chair of the committee, Stefan Hilger, for providing the society with a draft of the laudation that I also will read during the award ceremony in Białystok.

A Letter from the President
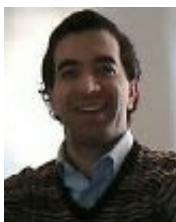
ISDE

2014 Best JDEA Paper Award

Another prize given annually by ISDE is the Best JDEA Paper Award. JDEA, the Journal of Difference Equations and Applications, is the official journal of the society. The winners of this year's Best JDEA Paper Award are **Anna Cima** (Autonomous University of Barcelona, Barcelona, Spain), **Armengol Gasull** (Autonomous University of Barcelona, Barcelona, Spain), and **Victor Mañosa** (Polytechnical University of Cataluna, Barcelona, Spain), authors of the paper "Basin of Attraction of Triangular Maps with Applications", Journal of Difference Equations and Applications, volume 20, number 3, pages 423—437, 2014. Congratulations!

Professor Gasull is a long-time member of our society; he joined in 2001 when ISDE was founded. He will also be a plenary speaker at PODE 2015.

2015 ISDE Conferences

If you have not registered for PODE 2015 yet, there are still ten days to do so. The deadline for registration is May 15, and the deadline for submitting an abstract is May 31. PODE 2015, the ninth edition of Progress on Difference Equations, will be held June 15—18, 2015, at the Universidade da Beira Interior in Covilhã, Portugal. The Chair of the Organizing Committee is **Rui Ferreira**. The conference website is *pode2015.ubi.pt.*

The deadline for early registration for ICDEA 2015 is coming up as well, May 19. The final deadline for registration and abstract submission is June 19. ICDEA 2015, the twenty-first International Conference on Difference Equations and Applications, will be held July 19—25, 2015, at Białystok University of Technology in Białystok, Poland. The Chair of the Organizing Committee is **Agnieszka Malinowska**. The conference website is *icdea.wi.pb.edu.pl.*
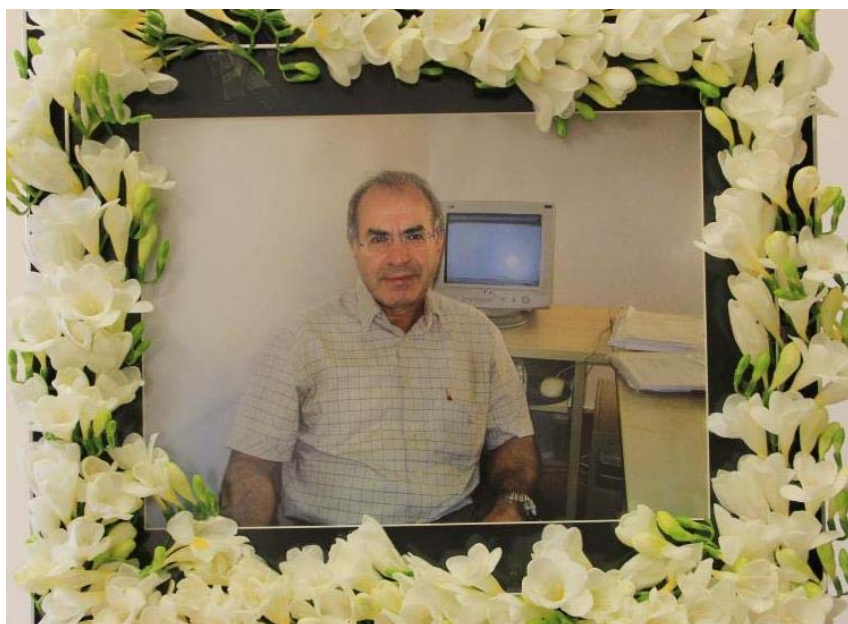
More information on both conferences appear later in this Newsletter. I am looking forward to seeing many of you in Covilhã and Białystok!

A Letter from the President

ISDE

Professor Gusein Guseinov (1951—2015)

With heavy heart and great grief, I am reporting to the society the death of my coauthor and dear friend, Professor **Gusein Guseinov** (Atilim University, Ankara, Turkey) on March 20, 2015, from a heart attack. A member of ISDE since 2005, Professor Guseinov is survived by his wife and his two sons Adil and Aydin Huseynov. Both Adil and Aydin are mathematicians working in the areas of difference equations and dynamic equations on time scales; Aydin is also a member of ISDE.

Gusein Guseinov was born in Azerbaijan on July 17, 1951. From 1968 until 1973, he studied in the Department of Mathematics at Azerbaijan State University in Baku, Azerbaijan, and from 1973 until 1977, he studied in the Department of Mathematics at Moscow State University in Moscow, Russia, where he received his PhD in 1977. He was a senior researcher at the Azerbaijan Academy of Sciences 1977—1980 and at Moscow State University 1980—1982. From 1982 until 1992, Professor Guseinov was the Head of the Department "Spectral Theory of Operators" at the Azerbaijan Academy of Sciences. In 1991, he was named Doctor of Physical and Mathematical Sciences, and in 1993, he relocated to Turkey to become a Professor at Ege University in Izmir, where he remained until his move to Atilim University in Ankara in 2001. Professor Guseinov has authored more than 100 research papers in the areas of difference and functional equations, ordinary differential equations, dynamical systems, spectral analysis, and dynamic equations on time scales. He was a great researcher, teacher, and person. He will be missed forever.

I take this opportunity to bring to the attention of the society a page dedicated to the memory of former ISDE members. You may access it by clicking on "Members" on the society web page, then clicking on the last line on the following screen. The password is as well "*isdemembers*".

Yours Sincerely,

M. Bohner.

Volume 4, Issue 4   May 2015

Newsletter Editor: Małgorzata Guzowska

INTRODUCTION FROM THE NEWSLETTER EDITOR

Dear Colleagues:

It is my great pleasure to present to you the new issue of the ISDE Newsletter. I hope you will enjoy reading this new issue.

Also thanks to all ISDE members who have sent information for this newsletter.

I would also like to ask the members of the Society to contribute information and articles about their faculties, new books, new conferences, new grants and job opportunities to the newsletter and webpage, as well as any relevant information about mathematics or about our members.

All information may be emailed to:
`MalgosiaGuzowska@gmail.com`

With Best Regards

Małgorzata Guzowska

ICDEA 2015

19 -25 July 2015
Białystok

The twenty first **International Conference on Difference Equations and Applications** will be held in the Białystok University of Technology (Białystok, Poland) from July 19 to 25, 2015. The conference is organized by the Białystok Branch of the Polish Mathematical Society, under the auspices of the International Society of Difference Equations (ISDE).

The purpose of the conference is to bring together experts and novices in the theory and applications of difference equations, broadly defined, and discrete dynamical systems. The plenary speakers are experts chosen from the many areas of difference equations and experts on dynamical systems. Contributed talks are welcome and will be considered. During the conference, there will be organized a special session for PhD students.

INVITED SPEAKERS

Jacek Banasiak (Technical University of Łódź, Poland, and University of KwaZulu Natal, South Africa)

Martin Bohner (Missouri University of Science and Technology,USA)

István Győri (University of Pannonia, Hungary)

Tibor Krisztin (Bolyai Institute, University of Szeged, Hungary)

Jaume Llibre (Universitat Autònoma de Barcelona, Spain)

Michał Misiurewicz (Indiana University-Purdue University Indianapolis, USA)

Mihály Pituk (University of Pannonia, Hungary)

Ryszard Rudnicki (University of Silesia and Institute of Mathematics Polish Academy of Sciences, Poland)

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	Ewa Schmeidel

More information: **http://icdea.wi.pb.edu.pl**

PODE 2015 in Covilhã, Portugal, 15-18 June 2015

The Department of Mathematics of University of Beira Interior is pleased to host the 2015 Progress on Difference Equations from June 15 to June 18, 2015.

This meeting, held under the auspicies of the International Society for Difference Equations, aims to be a forum where researchers can share their work and discuss the latest developments in the areas of difference equations, discrete dynamical systems and their applications. This meeting is the nineth edition of PODE meetings and continues in the line of previous workshops held in Laufen (Germany) in 2007 and 2008, Bedlewo (Poland) in 2009, Xanthi (Greece) in 2010, Dublin (Ireland) in 2011, Richmond (USA) in 2012, Bialystok (Poland) in 2013, and Izmir (Turkey) in 2014.

University of Beira Interior (UBI) was founded in 1979 and awards all university academic degrees in several fields. It is located in the city Covilhã, one of the main urban centres of the Beira Interior region, in central Portugal.

Covilhã leans on the slope of Serra da Estrela, the highest mountain range in Continental Portugal, and towers between 450 and 800 metres above the sea level. The region is famous for the soft and gooey cheese that becomes harder as the time goes by. The region has also an interesting gastronomy and wine production.

PLENARY SPEAKERS

Martin Bohner, Missouri University of Science and Technology

Saber Elaydi, Trinity University

Galina Filipuk, Warsaw University

Armengol Gasull, Universitat Autònoma de Barcelona

Alberto Pinto, University of Porto

Christian Pötzsche, University of Klagenfurt

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Donal O'Regan (National University of Ireland)
César Silva (Universidade da Beira Interior)
Chris Tisdell (University of New South Wales)

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Pedro Patrício (Universidade da Beira Interior)
César Silva (Universidade da Beira Interior)
Sandra Vaz (Universidade da Beira Interior)
Hélder Vilarinho (Universidade da Beira Interior)

More information: http://www.pode2015.ubi.pt/about.php

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ISDE CALENDAR

27 – 30 May 2015, **SEVENTH International Conference on Dynamic Systems and Applications**, Morehouse College, Atlanta, Georgia, USA, e-mail: icdsa7@yahoo.com

27 – 30 May 2015, **FIFTH International Conference on Neural, Parallel & Scientific Computations**, Morehouse College, Atlanta, Georgia, USA, e-mail: icnpsc5@yahoo.com

12-15 July 2015, **EUROXVII Annual Conference (EURO 2015 is the premier European conference for Operational Research and Management Science)** will be hosted at the University of Strathclyde in Glasgow. Information: http://www.euro2015.org/

10-13 June, **AMS-EMS-SPM International Meeting 2015**, Porto, Portugal, Informations: http://aep-math2015.spm.pt/

15-18 June, **PODE 2015**, will take place in the Universidade da Beira Interior (UBI) in Covilha, Portugal. Informations: www.pode2015.ubi.pt

19-25 July 2015, **The International Conference on Difference Equations and Applications (ICDEA 2015)** will take place in the Bialystok University of Technology in Bialystok, Poland. Information: http://icdea.wi.pb.edu.pl/, and on e-mail: icdea2015@gmail.com

7-9 September 2015, **10th SICC International Tutorial Workshop "Topics in nonlinear dynamics"**. Information: http://www.neuro-eng-comp.polito.it/workshop/

BOOKS AUTHORED BY ISDE MEMBERS

- **POSITIVE DYNAMICAL SYSTEMS IN DISCRETE TIME. Theory, Models, and Applications,** by Ulrich Krause, De Gruyter Studies in Mathematics 62, 2015, http://www.degruyter.com/view/product/430890

- **Computational Methods in the Fractional Calculus of Variations,** by Ricardo Almeida, Shakoor Pooseh and Delfim F M Torres, Imperial College Press, 2015, http://www.worldscientific.com/worldscibooks/10.1142/p991

- **Advanced Methods in the Fractional Calculus of Variations,** by Malinowska, Agnieszka B., Odzijewicz, Tatiana, and Torres, Delfim F.M, Springer, 2015, http://www.springer.com/mathematics/book/978-3-319-14755-0

- **Difference Equations by Differential Equation Methods,** by Hydon Peter, Cambridge University Press 2015, http://www.kent.ac.uk/smsas/personal/ph282/pub.htm

- **Infinite-horizon optimal control in the discrete-time framework** by Joel Blot and Naila Hayek**,** SpringerBriefs in Optimization, 2014, 124 pages

- **Geometric Theory of Discrete Nonautonomous Dynamical Systems** by Pötzsche, Christian, Springer | 2010 | ISBN: 3642142575 | 398 pages | File type: PDF | 3,2 mb

- **Quantum Variational Calculus, Series: SpringerBriefs in Electrical and Computer Engineering, Subseries: SpringerBriefs in Control, Automation and Robotics**, by Agnieszka B. Malinowska and Delfim F. M. Torres,

  Series Editors: Basar, Tamer; Bicchi, Antonio; Krstic, Miroslav. Published by: Springer, 2014. Electronic ISBN: 978-3-319-02747-0 Print ISBN: 978-3-319-02746-3 DOI:10.1007/978-3-319-02747-0

- **Almost Automorphic Type and Almost Periodic Type Functions in Abstract Spaces** by Toka Diagana, New York Springer. 2013, 303 pages.

- **Difference and Differential with Applications in Queueing Theory** by Aliakbar Montazer Haghighi and Dimitar P. Mishev, John Wiley & Sons, 2013, 424 pages.

- A.A.Martynyuk, **Stability Analysis via Matrix Functions Method**, 2013 Part I, 262p. and Part II, 130p. www.bookboon.com Section Statistics and Mathematics.

- A.Martynyuk, L.Chernetskaya and V.Martynyuk, **Weakly Connected Nonlinear Systems. Boundedness and Stability of Motion**, 2013, CRC Press, Taylor and Francis, 212p., Zbl pre06110079.

- **Stability Theory of Solutions of Dynamic Equations on Time Scales**, by A.A. Martynyuk, Kiev: Phoenix, 2012, 277 pages.

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GOALS OF THE SOCIETY

To promote difference equations and discrete dynamical systems, defined broadly, as one of the fundamental subjects in Mathematics.

To promote discrete models as models of premiere mathematical importance in the natural sciences, engineering, economics, etc.

To coordinate activities in the area of difference equations such as organizing conferences, annual meetings, workshops, special sessions, etc.

To lend support to researchers in difference equations from developing countries and those who need help by making available copies of research articles, lecture notes, technical reports and books.

To promote the publication of books, monographs, lecture notes and expository articles in the area of difference equations.

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