

Report of the Evaluation Committee for the promotion of
Dr. hab. Janusz Andrzej Brzdęk
To full professorship in the area *Matematyka* – Mathematical Analysis

On February 16, 2016, the Scientific Council of the Mathematics Institute of the Silesian University in Opava approved the Evaluation Committee consisting of

Prof. RNDr. Jaroslav Smítal, DrSc., Silesian University, Opava – chair
Prof. dr. hab. Roman Ger, Silesian University, Katowice, Poland
Prof. dr. hab. Kazimierz Nikodem, University of Bielsko-Biala, Poland
Prof. Dr. Ludwig Reich, Karl-Franzens Universität, Graz, Austria
Doc. RNDr. Marta Štefánková, Ph.D., Silesian University, Opava

The Committee was subsequently appointed as approved. The Committee observed that the proposal fulfils all the requirements as stated in §74 of the Czech Republic Law no. 111/98 Sb. (the University Law), as well as all other conditions. The Committee assessed the qualifications of the applicant and issues the following report.

1. Personal data of the applicant

Janusz Andrzej Brzdęk

Docent, Mathematics Department of the Pedagogical University in Krakow

Born: 20. 3. 1959 in Chmielów, Poland
Polish ID no: AKJ938522
Address: Wyslouchów 30A/37, 30-611 Kraków, Poland

Educational history:

1983 M.Sc. in *Matematyka*, Jagiellonian University, Kraków
1991 PhD („doktor nauk matematycznych“), Silesian University, Katowice
2000 habilitation, „Doktor habilitowany nauk matematycznych“, Silesian University, Katowice

Employment history:

1985 – 1992 Asistent, Pedagogical University, Rzeszów
1993 – 1999 Lecturer, Mathematics Department, Pedagogical University, Rzeszów
2000 – 2001 Lecturer, Mathematics Department, Technical University Łódź, branch Bielsko-Biala
2001 - Docent, Mathematics Department, Pedagogical University, Kraków

2. Pedagogical activity

Since 1985, J. Brzdęk has been teaching a number of regular courses in Mathematical Analysis, Topology, Linear Algebra, Logics, Set Theory, Functional Equations as well as Seminar for Master degree students. Since 2005 he leads (jointly with J. Chmieliński) Seminar on Functional Equations and Inequalities for graduate students and members of Mathematics Department of the Pedagogical University; this seminar has long tradition, previous leaders were Professors B. Choczewski and Z. Moszner. He was supervisor of 20 Master degree diploma theses, and participates in educating the young scientific generation. Among his students we find Anna Mureńko, PhD (2006), Eliza Jabłońska, PhD (2007), Adam Najdecki, PhD (2007), Małgorzata Chudziak, PhD (2010). At present he is mentoring El-Sayed El-Hady (Universität Innsbruck and Suez Canal University, Ismailia, Egypt – jointly with W. Förg-Rob), who completed his PhD at the end of February 2016, and the graduate student Renata Malejki (Pedagogical University, Kraków), who is expected to defend her theses in beginning of 2017.

3. Scholarly and research activities

J. Brzdęk is internationally recognized scientist in the field of mathematical analysis, in

particular, in the field of functional equations.

His early research interest was focused on functional equations of several variables of Gołab-Schinzel type, and on their applications; he obtained several significant generalizations and extensions of earlier results e.g. by J. Aczél, K. Baron, J. Dhombres, S. Gołab, L. Reich and A. Schinzel; in particular, he discovered a method of finding continuous real solutions to equations of Gołab-Schinzel type which appeared to be very useful in applications.

After obtaining his Ph.D. degree he started to investigate functional congruences extending and generalizing results of several prominent mathematicians. These results formed the basis of his habilitation thesis.

His current research, after habilitation, concerns Ulam's type stability of difference, differential, functional, integral and operator equations, and its connection to fixed point theory. Jointly with 16 various coauthors he obtained essential results. This part of his research activity is the most important one, and earned him the international recognition.

J. Brzdęk presented his results on tens of international conferences and symposia. Since 1989 there were nearly 50 such meetings, mainly in Poland, but also in Hungary 5x, ČR 4x, Austria 3x, Germany 2x, Italy 2x, Romania 2x, Turkey 2x, Canada, France, Malta, Slovakia, USA; he delivered there 7 plenary and 41 invited talks. He was active as Lead Editor or Lead Guest Editor of six books or special issues of international journals, referee of numerous international journals, and chairman or member of Scientific or Programme Committees of more than 30 international conferences.

4. Publications

J. Brzdęk has authored or coauthored 108 original papers in international journals, of which many are considered as prestigious by the mathematical community (e.g. Proc. Amer. Math. Soc., J. Math. Anal. Appl. (7 papers), or Nonlinear Analysis (7 papers)), and 12 survey or introductory papers. His papers earned more than 400 citations according to WoS (without autocitations), more than 600 citations according to Math. Reviews, and more than 40 so-called qualified citations where the citing author uses the cited results in an essential way; from this point of view the most successful is the paper by J. Brzdęk in Publ. Math. Debrecen 63 (2003), 421 – 429, with 9 qualified citations.

5. Recommendations of independent experts

V. Brzdęk submitted recommendations in written form by the following experts:

Prof. Dr. Z. Páles, University of Debrecen, Hungary
Prof. dr. hab. M. Sablik, Silesian University, Katowice, Poland
Prof. Dr. L. Székelyhidi, Gaborone, Botswana (also University of Debrecen)
Prof. dr. hab. M. Zdun, Pedagogical University, Krakow, Poland

Z. Páles in his recommendation writes: „... Based on our 25-year long scientific relationship and the role played by Dr. Brzdęk on the „functional equations“ community, I warmly support his nomination as a full professor of mathematics.“

„ From the recommendation of *M. Sablik*: „... I think that dr. hab. Janusz Brzdęk has all the qualities required for the title of Professor, and certainly deserves it. I do recommend him for the promotion. He will not stop his activities, the title would essentially strengthen his present position.

From the recommendation of *L. Székelyhidi*: „Based on our more than 25 year old acquaintanceship, I am fully convinced that his potential abilities for research work, his personality and character grant him a world-wide respect and international reputation. I warmly recommend his nomination as a professor of mathematics.

M. Zdun in his opinion writes: „... As a longtime member of the Jury of the annual Marek Kuczma Competition (for the best Polish publication in Functional Equations) I was acquainted with all scientific works of Dr. Janusz Brzdęk from the beginning of his scientific activity and I have the opportunity to observe his development. In my opinion his papers are valuable and especially those

written after his habilitation. Taking into account his whole scientific activity I warmly recommend his nomination as professor of mathematics.“

Conclusions

The Commission observes that the promotion of dr. hab. J. Brzdęk to full professorship was started in accordance with §74 of the Czech Republic Law no. 111/98 (the University Law). Applicant submitted positive written recommendations of four outstanding scholars. The Committee further observes that J. Brzdęk has gained international recognition for his scholarly work in the area of mathematical analysis. He has long been active as a university teacher at the Pedagogical University in Kraków. He takes part in educating young scientific generation. The Committee observes that J. Brzdęk fulfills all the requirements as stated in §74 of the University Law as well as the conditions for promotion to full professorship in mathematical disciplines set by the Scientific Council of the Silesian University in Opava. Therefore

**The Committee unanimously recommends to promote
dr. hab. Janusz Brzdęk
to Full Professor in the area Mathematics – Mathematical Analysis**

and presents this proposal to the Scientific Council of the Mathematical Institute in Opava for further proceedings.

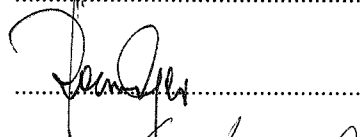
Remark. This report was prepared in Czech and English versions, with identical contents.

Hajdúszoboszló, June 14, 2016

Prof. RNDr. Jaroslav Smítal, DrSc.



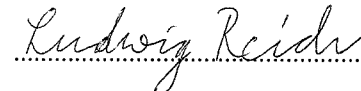
Prof. dr. hab. Roman Ger



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