



**Antal Bege**  
(1962–2012)

*Our colleague, friend, editor-in-chief of Acta Universitatis Sapientiae, associate professor Antal Bege passed away unexpectedly on March 22, 2012. He was only 49.*

*After finishing his studies in Mathematics at Babeş-Bolyai University in Cluj he became a teacher in his former school in Miercurea Ciuc. After the regime change in 1989 he joined the Faculty of Mathematics and Computer Science, at Babeş-Bolyai University. He worked there for almost two decades, then went over to Sapientia Hungarian University of Transylvania, Department of Mathematics and Informatics in Târgu-Mureş in 2008. This is where he became the head of the department and the editor-in-chief of the academic journal Acta Universitatis Sapientiae. Naturally, he did his best in all these qualities.*

*Among his research interests we can mention Number Theory (arithmetical functions), Nonlinear Analysis and Discrete Mathematics. He published 13 textbooks and monographs both in Hungarian and Romanian, as well as a lot of scientific papers.*

*He was extremely evenhanded person, appreciated by all his colleagues and students, a man of poise and an eternal stayer. With a terrible feeling of pain and loss, we say goodbye to our friend. We shall treasure his memory.*

*Editorial Board*

## Antal Bege's publications

### Books

1. A. Bege, Z. Kása, L. Tóth, *Relációk és alkalmazásai (Relations and applications – in Hungarian)*, Műegyetemi Kiadó, Budapest, 1999, 71 p.
2. A. Bege, *Diszkrét matematika (Discrete mathematics – in Hungarian)*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2009, ISBN 978-973-610-880-8, 175 p.
3. A. Bege, *Differenciálegyenletek – gyakorlatok és feladatok, (Problems and exercises in differential equations – in Hungarian)*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2008, ISBN 978-973-610-723-8, 191 p.
4. A. Bege, *238 válogatott számelméleti feladat (238 selected problems in number theory – in Hungarian)*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2008, ISBN 978-973-610-735-1, 203 p.
5. A. Bege, *Rekurzív sorozatokkal kapcsolatos feladatok (Problems with recurrences – in Hungarian)*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2007, ISBN 978-973-610-560-9, 152 p.
6. A. Bege, *Skatulyaelvvel kapcsolatos feladatok (Problems with pigeonhole principle – in Hungarian)*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2007, ISBN 978-973-610-562-3, 129 p.
7. A. Bege, *Régi és új számelméleti függvények (Old and new number theoretical functions – in Hungarian)*, Scientia Kiadó, Kolozsvár, 2006, ISBN 10973-7953-62-2, 115 p.
8. A. Bege, Z. Kása, *Algoritmikus kombinatorika és számelmélet (Algorithmic combinatorics and number theory – in Hungarian)*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2006, ISBN 10973-610-446-X, 215 p.
9. A. Bege, *Differenciaegyenletek (Difference equations – in Hungarian)*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2005, ISBN 973-610-346-3, 228 p.
10. A. Bege, *Teoria discretă a punctului fix (Discrete theory of fix points – in Romanian)*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2002, ISBN 973-610-084-7, 181 p.
11. A. Bege, *Bevezetés a számelméletbe (Introduction to number theory – in Hungarian)*, Scientia Kiadó, Kolozsvár, 2002, ISBN 973-85750-3, 198 p.

12. A. Bege, A. Demeter, A. Lukács, *Számelméleti feladatgyűjtemény (Number theoretical problems – in Hungarian)*, Scientia Kiadó, Kolozsvár, 2002, ISBN 973-85422-7-8, 156 p.
13. Z. Kása, A. Bege, *Matematica discretă (Discrete mathematics – in Romanian)*, Univ. Babeş-Bolyai, Cluj-Napoca, 2002, 102 p.

### Scientific papers

14. A. Bege, Generalized LCM matrices, *Publ. Math. Debrecen* **79** (2011), 309–315.
15. A. Bege, A generalization of Apostol's Möbius functions of order  $k$ , *Publ. Math. Debrecen* **58** (2001) 293–301.
16. A. Bege, Generalized GCD matrices, *Acta Univ. Sapientiae Math.* **2** (2010) 160–167.
17. A. Bege, Generalized Möbius-type functions and special set of  $k$ -free numbers, *Acta Univ. Sapientiae Math.* **1** (2009) 143–150.
18. A. Bege, Hadamard product of GCD matrices. *Acta Univ. Sapientiae Math.* **1** (2009) 43–49.
19. A. Bege, K. Fogarasi, Generalized perfect numbers. *Acta Univ. Sapientiae Math.* **1** (2009) 73–82.
20. J. Sándor, A. Bege, The Möbius function: generalizations and extensions, *Adv. Studies in Cont. Math.* **6** (2003), 77–128.
21. A. Bege, On multiplicatively bi-unitary perfect numbers, *Notes Number Theory Discrete Math.* **8** (2002) 28–36.
22. A. Bege, Fixed point theorems in ordered sets and applications, *Seminar on Fixed Point Theory* **3** (2002) 129–136.
23. A. Bege, Fixed points of R-contractions, *Studia Univ. Babeş-Bolyai Math.* **47** (2002) 19–25.
24. A. Bege, Z. Kása, Coding objects related to Catalan numbers, *Studia Univ. Babeş-Bolyai Inform.* **46** (2001) 31–40.
25. A. Bege, On multiplicatively unitary perfect numbers, *Seminar on Fixed Point Theory* **2** (2001) 59–64.

26. A. Bege, C. Iancu, D. V. Ionescu and "Gazeta matematica", in: *Mathematical contributions of D. V. Ionescu*, Edited by Ioan A. Rus, Babeş-Bolyai University, 2001, 95–100.
27. A. Bege, About difference-differential equations which appear in number theory, *Seminar on Fixed Point Theory* **1** (2000) 9–13.
28. A. Bege, Some discrete fixed point theorems, *Studia Univ. Babeş-Bolyai Math.* **45** (2000) 31–37.
29. A. Bege, The generalization of fixed point theorems in ultrametric spaces, *Studia Univ. Babeş-Bolyai Math.* **41** (1996) 17–21.
30. A. Bege, Two asymptotic formulas related to bi-unitary divisors, *Notes Number Theory Discrete Math.* **2** (1996) 7–14.
31. A. Bege, Fixed points of certain divisor function, *Notes Number Theory Discrete Math.* **1** (1995) 43–44.
32. A. Bege, Some remarks concerning fixed points in partially ordered sets, *Notes Number Theory Discrete Math.* **1** (1995) 142–145.
33. A. Bege, O inegalitate cu media generalizata a lui Stolarsky, *Lucr. Semin. Didact. Mat.* **8** (1992) 17–22.
34. A. Bege, Triunitary divisor functions, *Studia Univ. Babeş-Bolyai Math.* **37** (1992) 3–7.
35. A. Bege, D. M. Milosevic, Some inequalities for a triangle, *Mathematica (Cluj)* **34 (57)** (1992) 99–105.
36. A. Bege, Some generalized contractions in metric spaces, *Seminar on Fixed Point Theory* **91-3**, 1–6.
37. A. Bege, A generalization of von Mangoldt's function, *Bull. Number Theory Related Topics* **14** (1990) 73–78.
38. A. Bege, A note on a generalization of an arithmetical function, *Bull. Number Theory Related Topics* **14** (1990) 68–70.
39. A. Bege, D. M. Milosevic, Recent advances in triangle inequalities, *Studia Univ. Babeş-Bolyai Math.* **35** (1990), 61-67.
40. A. Bege, A note on a sum of one arithmetical function, *Bull. Number Theory Related Topics* **12** (1988) 116–120.

41. Bartha Zs., Bege A., Hyperperfect numbers and generalizations, *8th Joint Conf. on Math. and Computer Science, MACS 2010*, July 14–17, 2010, Komárno, Selected Papers, Novadat (Budapest) pp. 15–22. ISBN 978-963-9056-38-1
42. A. Bege, Existence and uniqueness of the solution for a boundary value problem, *Proceedings of the "Tiberiu Popoviciu" itinerant seminar of functional equations, approximation and convexity*, 2000, 29–36.

### Other papers

43. A. Bege, Erdős Pál és a KÖNYV (P. Erdős and the BOOK – in Hungarian), *MatLap (Kolozsvár)* 2001/5 326–329.
44. A. Bege, A tökéletes számoktól a barátságos számokig (From perfect numbers to friendly numbers – in Hungarian), *MatLap (Kolozsvár)* 2000/4, 87–89.
45. A. Bege, Numere exponențial perfecte (Exponential perfect numbers – in Romanian), *Didactica Matematicii (Cluj-Napoca)* 1994/4, 35–38.
46. A. Bege, Asupra unei inegalități geometrice (On a geometric inequality – in Romanian), *Didactica Matematicii (Cluj-Napoca)* **9** (1994) 39–40.
47. A. Bege, A hamis zsákok nyomában (In the train of counterfeit bags – in Hungarian), *KÖMAL (Budapest)* **38** (1988) 97–99.

### PhD Thesis

48. A. Bege, *Teoreme discrete de punct fix și aplicații (Discrete fixpoint theorems with applications)*, Universitatea Babeș-Bolyai, Cluj-Napoca, 2000. Scientific adviser: Prof. dr. Ioan A. Rus.

### Book editing

49. H. F. Pop, A. Bege (eds.), *8th Joint Conference on Mathematics and Computer Science MaCS 2010, Selected papers*, Novadat, Győr, Hungary, 2011, 416 p. ISBN 978-963-9056-38-1.

## Translation

50. D. E. Knuth, *A számítógép-programozás művészete, 4. kötet 3. rész: Kombinációk és partíciók előállítása* (The Art of Computer Programming, vol. 4. Fasc. 3. Generating all combinations and partitions), (with L. Lóczi, L. Szalay, M. Szalay) Ed. A. Iványi, AnTonCom, Budapest, 2008. ISBN 978-963-87947-2-7.