

PUBLICATIONS

A. Article in periodical

- 1, G. Bognár-J. Cepicka-P. Drábek-P. Necesal-E. Rozgonyi: Necessary and sufficient conditions for the existence of solution to the three-point BVP, *Nonlinear Analysis, Series A, Theory and Methods*, (accepted, available online from 4. September 2007) <http://dx.doi.org/10.1016/j.na.2007.08.072> (IF=0,519)
- 2, G. Bognár-E. Rozgonyi: The power series solutions of some nonlinear initial value problems, *WSEAS Transactions on Mathematics*, 5 No.6 (2006) 627-635.
- 3, G. Bognár, Geometric aspects of some nonlinear differential equations, *Nonlinear Analysis*, 63 (2005), 399-405. (IF=0,519)
- 4, G. Bognár-P. Drábek.: The p -Laplacian equation with superlinear and supercritical growth, multiplicity of radial solutions, *Nonlinear Analysis, Series A, Theory and Methods*, 60 (2005), 719-728. (IF=0,519)
- 5, G. Bognár-M. Rontó-N. Rajabov: Investigation of initial value problems related to p -Laplacian and pseudo-Laplacian, *Acta Math. Hung.*,108 (1-2) (2005), 1-12. (IF=0,240)
- 6, G. Bognár, On a nonlinear parabolic differential equation, *Miskolc Mathematical Notes*, 5 (2004), 145-154.
- 7, G. Bognár, On the length of the nodal contour of some nonlinear eigenvalue problems, *Archives of Inequalities and Applications*, 2 (2004), 199-206.
- 8, G. Bognár-O. Dosly: The application of Picone-type identity for some nonlinear elliptic differential equations, *Acta Mathematica Univ. Comeniana*, LXXII No.1 (2003), 45-57.
- 9, G. Bognár-M. Rontó.: Numerical-analytic investigation of the radially symmetric solutions for some nonlinear PDE, *Computers and Mathematics with Applications*, 50 (2005), 983-991. (IF=0,430)
- 10,G. Bognár, The application of isoperimetric inequalities for nonlinear eigenvalue problems, *WSEAS Transactions on Systems*, 1 No.2 (2002), 119-124.
- 11,G. Bognár, Error estimates for the finite element solutions of a nonlinear elliptic problem, *Journal of Nonlinear Analysis: Series A, Theory and Methods*, 47 (2001), 4377-4386. (IF=0,519)

- 12,G. Bognár, On the radially symmetric solutions of Dirichlet problem for a class of nonlinear PDEs, *Nonlinear Oscillations*, 3 No.2 (2000), 154-159.
- 13,G. Bognár-T. Szabó: The solution of nonlinear eigenvalue problems using p-version of FEM, *Computers and Mathematics with Applications*, 46 (2003), 57-68. **(IF=0,498)**
- 14,G. Bognár, Numerical approximation of some nonlinear problems, *Problems in Modern Mathematics* (Edited by Nikos E. Mastorakis) World Scientific and Engineering Society Press, 2000. 333-399. ISBN: 960-8052-15-7
- 15,G. Bognár, Finite element method for a nonlinear problem, *Computer Assisted Mechanics and Engineering Sciences*, Vol. 7 No.4 (2000), 471-478.
- 16,G. Bognár, On a nonlinear boundary value problem, *Publ. Univ. Miskolc, Series D. Natural Sciences*, Vol. 39 (1999), 5-11.
- 17,G. Bognár, Analysis of a nonlinear membrane problem, *Physics and Modern Topics in Mechanical and Electrical Engineering*, World Scientific and Engineering Society Press, 1999. 165-177. ISBN: 960-8052-10-6
- 18,G. Bognár, Eigenvalue problem for nonlinear partial differential equations, *Systems Analysis Modelling Simulation*, Vol. 37 (2000), 449-462.
- 19,G. Bognár, Finite element formulation of a nonlinear Dirichlet problem, *Publ. Univ. of Miskolc, Series D. Natural Sciences*, Vol. 38. (1998), 3-14.
- 20,G. Bognár, On the existence and uniqueness of the symmetric solutions for the boundary value problem of semilinear PDE, *Publ. Univ. of Miskolc, Series D. Natural Sciences*, Vol. 37. (1997), 13-20.
- 21,G. Bognár, Existence theorem for eigenvalues of a nonlinear eigenvalue problem, *Communications on Applied Nonlinear Analysis*, 4 (1997), No.2, 93-102.
- 22,G. Bognár, On the radially symmetric solutions to a nonlinear PDE, *Publ. Univ. of Miskolc, Series D. Natural Sciences*, Vol. 36. (1996) No. 2, 13-20.
- 23,G. Bognár, On the radial symmetric solution of a nonlinear partial differential equation, *Publ. Univ. of Miskolc, Series D. Natural Sciences*, Vol. 36. (1995) No. 1, 13-22.
- 24,G. Bognár, The eigenvalue problem of a quasi-linear partial differential equation, *Publ. Univ. of Miskolc, Series D. Natural Sciences*, Vol. 35. (1994) No. 4, 27-48.
- 25,G. Bognár, The eigenvalue problem for some nonlinear elliptic partial differential equation, *Studia Scie. Hung. Math.*, 29 (1994), 213-231. **(IF=0,302)**
- 26,G. Bognár, A lower bound for the smallest eigenvalue of some nonlinear elliptic eigenvalue problem, *Applicable Analysis*, 51 (1993), No. 1-4, 277-288.

- 27, Bognár G.: A komplex függvénytan néhány alaptételének kiterjesztése általánosított komplex számtestekre, NME Közlemények, Miskolc, IV. Sorozat, Természettudományok, 26 (1985), 225-237.
- 28, Bognár G.: Lineáris hővezetési feladat időtől függő peremfeltételekkel, 1981, TDK dolgozat. NME.
- 29, Bognár G.: A YASDA YBM-90N megmunkáló központ golyósorsójának axiális merevsége, 1981, TDK dolgozat. NME.

B. Conference proceedings

- 30, G. Bognár, E. Rozgonyi, On the radial solutions for some nonlinear initial value problems, 12th WSEAS Int. Conf. On Applied Mathematics, Cairo, Egypt, December 29-31, 2007, ISBN: 978-960-6766-27-5, 13-19.
- 31, G. Bognár-E. Rozgonyi: The series expansions of generalized hypergeometric functions, Proc. of the 9th WSEAS Int. Conf. on Applied Mathematics, Istanbul, Turkey, May 27-29, 2006. ISBN:960-8457-45-9, 181-186.
- 32, G. Bognár, Lower bound for the eigenvalues of quasilinear Hill's equation, Proceedings of the Conference on Differential and Difference Equations and Applications, Edited by Ravi P. Agarwal and Kanishka Pereira, 2006, p. 211-219. ISBN 977-5945-380
- 33, G. Bognár, Isoperimetric inequalities for some nonlinear eigenvalue problems, Electronic Journal of Qualitative Theory of Differential Equations, E. J. Qualitative Theory of Diff. Equ., Proc. 7th Coll. Qualitative Theory of Diff. Equ., No. 4. (2004), pp. 1-12.
- 34, G. Bognár, On the roots of the solution of a generalized Bessel equation, Folia FSN Univ. Masarykianae Brunensis, Matematica 13 (2003), 33-43.
- 35, G. Bognár, The application of isoperimetric inequalities for nonlinear eigenvalue problems, Proc. of International Conference on Mathematics and Computers in Physics '02, May 12-16, 2002. Cancun, Mexico. ISBN:960-8052-59-9, 1511-1515.
- 36, G. Bognár, Numerical approximation of some nonlinear problems, Proc. 2nd International Conference on Mathematics and Computers in Mechanical Engineering, July 9-16, 2000. Vouliagmeni Athene, Greece. ISBN:960-8052-19-X, 5351-5356.
- 37, G. Bognár, On the first eigenpair of a nonlinear problem, Proc. 16th IMACS World Congress 2000 on Scientific Computation, Applied Mathematics and Simulation, August 21-25, 2000. Lausanne, Switzerland, ISBN:3-9522075-1-9, CP-316-2.pdf

- 38,G. Bognár, Analysis of a nonlinear membrane problem, Proc. of Mathematics and Computers in Mechanical Engineering, July 25-29, 1999. Marathon, Florida, USA, ISBN:960-8052-04-1, 271-276.
- 39,G. Bognár, Finite element approximation of the first eigenvalue of a nonlinear problem for some special domains, Electronic Journal of Qualitative Theory of Differential Equations, No.1 (2000), 1-12.
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- 41,G. Bognár, Finite element approximation of a nonlinear boundary value problem, Micro CAD, International Computer Science Conference, February 23-25,1999. Miskolc, L:Modern Numerical Methods, 19-24.
- 42,G. Bognár, On the symmetric solutions to a class of nonlinear PDEs., EQADIFF'9, Masaryk University Brno, 1998, 53-60.
- 43,G. Bognár, Neumann problem for nonlinear differential equation, Micro CAD, International Computer Science Conference, February 24-26,1998. Miskolc, K: Modern Numerical Methods, 27-32.
- 44,G. Bognár, Numerical solutions for the eigenvalue problem of some nonlinear PDEs, Proc. 15th IMACS World Congress on Scientific Computation, Modelling and Applied Mathematics, August 24-27, 1997. Berlin, Vol.2., Numerical Mathematics, 99-104.
- 45,G. Bognár, Approximation method for the solution of the eigenvalue problem of some nonlinear PDE, Micro CAD, International Computer Science Conference, February 26-27,1997. Miskolc, K:Modern Numerical Methods, 11-18.
- 46,G. Bognár, On the solution of some nonlinear boundary value problem, Proc. WCNA, August 19-26, 1992. Tampa, Florida, 2449-2458.
- 47,Bognár G.: Golyósorsók kritikus fordulatszámának meghatározása, XV OTDK Nívódíjas pályamunkái III. kötet (Műszaki tudományok) 1982, 362-365.

C. Book, lecture note

- 48,Vadászné Bognár Gabriella: Matematika Informatikusok és Műszakiak részére, (tankönyv) 2003, Miskolci Egyetemi Kiadó. 374 pages **ISBN 963-661-576**
- 49,Vadászné Bognár Gabriella: Matematika Közgazdászoknak, (javított kiadás) 2003, Miskolci Egyetemi Kiadó. 314 pages
- 50,Vadászné Bognár Gabriella: Matematika Közgazdászoknak, (egyetemi jegyzet) 1998, Miskolci Egyetemi Kiadó. 277 pages

51, Vadászné Bognár, Gabriella: Mathematics, Pre-university course, Trigonometry, 1987, Miskolc. 56 pages

52, Vadászné Bognár, Gabriella: Mathematics, Pre-university course, Geometry, 1987, Miskolc. 90 pages

D. Other

53, G. Bognár, Eigenvalue problems for a nonlinear partial differential equation, 1993. Candidate thesis.

54, Vadászné Bognár Gabriella: Differenciálható függvények az általánosított komplex számok halmazán és ezek rezgéstani alkalmazása, 1984, Thesis for university doctor degree, Nehézipari Műszaki Egyetem, Miskolc.