

CURRICULUM VITAE

Name: Angel Ivanov Zhivkov

Home address: "Malinova Dolina", str. 189, N. 6

Sofia 1000, Bulgaria

Home phone: (02) 862 63 75

Professional address :

Faculty of Mathematics and Informatics,

Sofia University,

5, J. Bourchier blvd.,

Sofia 1136, Bulgaria

Phone (02) 81 61 788.

e-mail: zhivkov@fmi.uni-sofia.bg

Position: Associate professor

Languages: English, Russian, Serbian, Bulgarian.

ADMINISTRATIVE POSITIONS

- Chair of the Division of Differential Equations (the Division has 11 faculty), 2001–2005, 2009–

TEACHING EXPERIENCE (at Sofia University)

1. *At undergraduate level:*

- Ordinary Differential Equations
- Calculus I, II
- Differential Geometry
- Partial Differential Equations
- Computer Algebra Systems

2. *At graduate level*

- Theta functions and non-linear equations (1991)
- Hamiltonian systems (1992)
- Geometry and topology (1993, 1995, 1998, 2011)
- Functional analysis (1994)
- Sophus Lie theory (1996)
- Riemann surfaces (1997,1999)
- Classical integrable systems (1998)
- Algebraic curves (1998, 2001)
- Elliptic functions (2000, 2002)
- Celestial mechanics (2003, 2005, 2007, 2009, 2011)
- General relativity (2006, 2008, 2010)

3. *M. Sc. - supervisor to the theses of:*

- Milena Stanislavova (now Associate Professor at University of Kansas, USA)
- Ioanna Makaveeva
- Tsvetana Stojanova (now Assistant Professor at Sofia University)
- Asen Lashkov
- Dragomira Belcheva

III. SUMMARY OF SCIENTIFIC ACTIVITIES

Education:

- Mathematical School, Vidin, Bulgaria - 1977
- M.Sc. in Mathematics, Sofia University - 1984
- Ph.D. in Mathematics, Moscow State University, Russia - 1989
Title of the thesis: Finite-gap potentials with symmetries and operator theory.
Thesis advisor: Professor Boris Dubrovin.

Full time positions:

- 1989 - 1991 : Junior scientific researcher at Bulgarian Academy of Sciences

- 1991 - 2001 : Assistant Professor , Sofia University
- 2001 - present : Associate Professor, Sofia University

Long term invited positions:

- Université Toulouse-III - June, 1994

Short term visits (less than one month):

- Humboldt University at Berlin - 1996, 1997, 1999, 2001
- Université de Nantes - 2004
- University of L' Aquila (Italy) - 2005
- SIMAT, Guanahuato (Mexico) - 2008
- University of Cagliari (Italy) - 2010

Invited talks at international conferences

- International Conference "Geometry and Mathematical Physics", Zlatograd, Bulgaria 26 August - 1 September 1995: – *Effective solutions of the Lagrange top.*
- Third international conference on Geometry, Integrability and Quantization, Varna, Bulgaria, 2-7 June 2001: – *On the rotation of the planets (Euler top).*
- Kolloquium dedicated to the 60th birthday of Professor Rolf–Peter Holzapfel, Humboldt University in Berlin, September 2003: – *On the exact solutions of the Kovalevski top.*
- International conference Geometry, Dynamics, Integrable systems, Belgrade, Serbia, 2-7 September 2008: – *On the dynamics of the solar system.* Belgrade, Serbia, 7-13 September 2010: – *Long–time stability of the solar system.*

Research interests:

- Classical integrable systems
- Theta functions
- Celestial mechanics

Awards:

- 18th International Mathematical Olympiad, Linz, Austria 1976 – silver medal
- 19th IMO, Belgrade, Yugoslavia, 1977 – bronze medal

Membership:

- American Mathematical Society
- Mathematical Reviews and Zentralblatt MATH reviewer

LIST OF PUBLICATIONS:

1. Dabnichki, P., Zhivkov, A. *An analytical method for reconstruction of biological objects from discrete noisy data*. Mathematical and Computer Modeling of Dynamical Systems, Vol. 16, No. 5 (2010), 431–442.
2. Zhivkov, A., *Resolutions of degree ≤ 6 algebraic equations by genus two theta constants*. Journal of Geometry and Symmetries in Physics, vol. 11 (2008), 77–93.
3. Lashkov, A., Zhivkov, A., *Geometry and solutions of the planar problem of two centers of gravitations*. Annuaire de l'Univ. de Sofia, Fac. Math. Inf., 99 (2008), 83–90.
4. Dabnichki, P., Zhivkov, A., *Analytical Approach to Cell Geometry Description*. Computers, Materials & Continua, Vol. 2., N. 2 (2005), 97–103.
5. Zhivkov, A., Makaveeva, I., *Effective solutions of an integrable case of the Henon–Heiles system*. Geometry, integrability and quantization (Varna, 2001), 454–460, Coral Press Sci. Publ., Sofia, 2002.
6. Zhivkov, A., Christov, O., *Effective solutions of the Clebsch and C. Neumann systems*. Sitzungsberichte der Berliner Mathematischen Gesellschaft (2001), 217–242.
7. Zhivkov, A., *Guide on Differential Equations (in Bulgarian)*. Sofia, Dem. Trad., III Edition (1999), pp. 152.
8. Gavrilov, L., Zhivkov, A., *The complex geometry of the Lagrange top*. Enseign. Math. (2) 44, no. 1-2 (1998), 133–170.
9. Zhivkov, A., Stanislavova, M., *On the dynamics of the four-dimensional rigid body in a quadratic potential field*. Journ. Math. Phys. 36, no. 10 (1995), 5760–5788.
10. Zhivkov, A., *Finite-gap matrix potentials with one and two involutions*. Bull. Sci. Math. 118, no. 5 (1994), 403–440.
11. Zhivkov, A. I., *The geometry of invariant manifolds of a top in a quadratic potential field (in Russian)*. Izv. Akad. Nauk SSSR Ser. Mat. 54, no. 4 (1990), 879–893.
12. Zhivkov, A. I., *Isospectral classes of matrix finite-gap operators with symmetries (in Russian)*. Uspekhi Mat. Nauk 44, no. 1 (1989), 197–198.
13. Horozov, E., Zhivkov, A., *A new family of integrable Hamiltonian systems*. C. R. Acad. Bulgare Sci. 38, no. 12 (1985), 1605–1608.