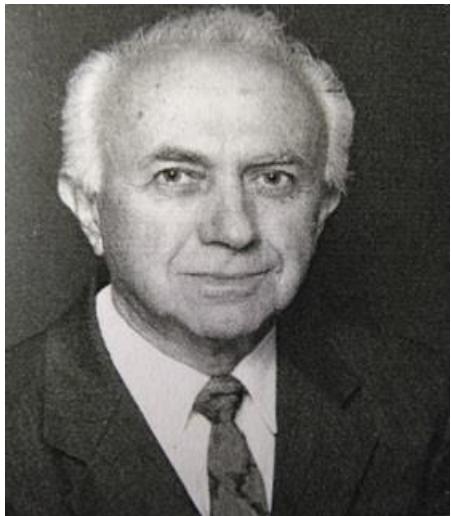


VELJKO VUJIĆ (1929 – 2020)

BIOGRAPHY



Veljko A. Vujićić, son of Akim and Ljubica (née Vučinić), was born on March 29, 1929, in Nikšić. He finished elementary and secondary education in his hometown. In the Yugoslav People's Army, he graduated from the Air Force Academy at Zadar in 1949, after which he went to Užice as an Instructor in anti-aircraft firing and ordnance.

He graduated from the Department of Mechanics at the Faculty of Natural Sciences and Mathematics of the University of Belgrade in 1957 and received his MSc degree in 1958. Afterwards, he served as a teaching assistant at the Faculty of Mechanics and Mathematics of the Lomonosov Moscow State University from 1959 to 1960, where he worked together with renowned professors N. G. Chetaev and V. V. Rumyantsev. Having passed his doctoral exams,

Vujićić defended his PhD thesis entitled *Motion and Stability of Motion of Dynamically Variable Objects* in front of the committee consisting of A. Bilimović, K. Voronjec, T. Andelić and D. Rašković. He received his doctoral degree from the Faculty of Natural Sciences and Mathematics in 1961.

He was elected assistant professor at the Faculty of Natural Sciences and Mathematics of the University in Belgrade in 1961, associate professor in 1968, and full professor in 1974. He taught *Dynamics of Bodies of Variable Mass*, *Vibration Theory*, *Analytical Mechanics*, *Statics*, *Tensor Calculus*, *Theory of Fields* (at the Department in Zrenjanin), *Theory of Stability and Control of Mechanical Systems*. Furthermore, at the Faculty of Mechanical Engineering of the University of Belgrade, he taught a postgraduate course in *Tensor Calculus*, at the Faculty of Engineering Sciences of the University of Titograd (present-day Podgorica), he taught *Statics*, *Resistance of Materials* and *Technical Dynamics*, and *Mechanics II* at the Faculty of Mining and Metallurgical Engineering in Kosovska Mitrovica. He was in charge for scientific seminars on *Stability of Motion*, *Control of Mechanical Systems* and *Analytical Mechanics*. He was the advisor of 18 master's theses and 8 doctoral dissertations. He authored two university textbooks (two editions) and translated two from Russian.

Since his first scientific paper, published in 1960 in the USSR Academy of Science journal *Applied Mathematics and Mechanics*, he published over 150 scientific papers in many national and international journals and proceedings, as well as monographs: *Covariant Dynamics* (Belgrade, 1981), *Dynamics of Rheonomic Systems* (Belgrade, 1990), *Preprinciples of Mechanics* (Belgrade, 1998), in both Serbian and English, and a co-authored monograph with A. A. Martinjuk *Некоторые задачи механики неавтономных систем* (Eng. *Some Problems of Mechanics of Nonautonomous Systems*) (Belgrade-Kiev, 1991). In addition, he published

booklets *Sile pojavnog i programiranog kretanja* (Belgrade, 2004) (Eng. *The Forces of Phenomenal and Programmed Motion*) and *Sile centralnog kretanja po Njutnu i Petronijeviću* (Belgrade, 2005) (Eng. *The Forces of Central Motion according to Newton and Petronijević*).

International reference journals have published over 120 reviews of his research works and there are more than 150 citations of his results in different journals, monographs, university textbooks and PhD theses. His monographs have been presented in detail in several foreign scientific journals.

He was a founder and, for more than 20 years, the editor-in-chief of *Theoretical and Applied Mechanics*, a scientific journal issued by the Yugoslav Society of Mechanics and so far included so far in five international registers. He was a member of Editorial Boards of four national and one foreign scientific journal as well as of one international serial of scientific monographs.

In organizing scientific research work, he took part as chairman of the Department of Mechanics, director of Division of Mathematics, Mechanics and Astronomy, and as Dean of the Faculty of Natural Sciences and Mathematics at the University of Belgrade (appointed in 1973). Furthermore, he was the deputy director (in 1961 – 1969 and 1970 – 1973) and acting director of the Mathematical Institute of the Serbian Academy of Sciences and Arts (in 1969, 1973 and 1992 – 1993), as well as the chairman of the Department of Mechanics of the Mathematical Institute (1984 – 2000). Besides, he was the initiator and president of the first Committee for Mathematics and Mechanics of the Association for Science (RAS) of the Republic of Serbia, president of the RAS Chamber of Natural and Engineering Sciences, and researcher in charge for the macro project in mechanics at the republic level. He was also president of the Steering Committee and the first president of the Serbian Society of Mechanics (founded in 1968), as well as president of the Administrative Committee of the Yugoslav Society of Mechanics.

He was a member of various national and international scientific societies. He was an honorary member of the Yugoslav Society of Mechanics. He was also a correspondent member of the American (South and North) Academy of Mechanics (since 1994), a member of the International Academy of Nonlinear Sciences based in Moscow (since 1996), and a corresponding member of the European Academy of Arts, Sciences and Humanities (since 1998). He was awarded the Order of Labour with Golden Wreath, as well as the Order of Labour with Red Banner, and honoured with the Plaque of the City of Belgrade. He also received the honorary charter of the International Academy of Nonlinear Sciences based in Moscow. On April 26, 2016, the Managing Board honored Prof. Dr Veljko Vujičić with the MISANU Award in recognition of his outstanding contributions to the development of the Mathematical Institute and mathematics in Serbia.

Literature

Drašković, Z. (2002). The Life and Work of Veljko Vujičić, on occasion of his 70th anniversary. In *Recent advances in Analytical dynamics - control, stability and differential geometry: proceedings*, V. Đorđević (ed.). Beograd: Matematički institut SANU.

Veljko Vujičić. In *Spomenica: 130 godina Matematičkog fakulteta*. Beograd: Matematički fakultet (2003). Available Online <http://www.math.rs/files/VeljkoVujičić.pdf> (accessed December 1, 2020).

BIBLIOGRAPHY

1960

Некоторые интегралы уравнений движения динамически меняющейся точки (Some integrals of the equations of motion of a particle of variable mass), Прикладная математика и механика, Т. 24, вып. 4, pp. 732-733, Академия наук СССР (1960), Москва.
РЖ Mex., 5 A78 (1961).

Identification of dinamical trajectories of a particle of variable mass as autoparallels (In Serbian, English summary), Recueil des travaux de l' Academie serbe des Sciences LXIX, Institut Mathematique, N.8, pp. 151-156. (1960).
РЖ Mex., 7 A78 (1961); Zbl. Math.2, Band 134 (1967).

The motion of a particle of variable mass in conformal space (in Serbian, Russian summary).
Bull. Soc. Math. Phys., Serbie, Vol. XII, pp. 77-82. (1960).
Math. Rev.3, Vol. 33 (1967); Zbl. Math., Band 135 (1967).

Neki integrali jednačina kretanja dinamički promenljivog objekta, Zbornik radova V Jugoslovenskog kongresa za racionalnu i primjenjenu Mehaniku, Bled, juna, 1960.

1961

Some integrals of the equations of motion of a dynamically variable point, PMM - Journal of Applied Mathematics and Mechanics (Translation of the Soviet Journal ПММ) Vol. 24, N.4, pp. 1094-1097, Publ American Soc. Mech. Eng. with Pergamon Inst. (1961).

1962

Some integrals of the equations of motion of variable mass objects (in Serbian, Russian summary), Tehnika - Opšti deo XVII, N.4. pp.81-85, (1962).
РЖ Mex., 11 A (1962).

Tvar i materija, filozofija (Substance and matter - discontinuous in continuous), Jugoslovenski časopis za filozofiju, br. 1, pp 99 - 107. Beograd, (1962).

MOTION AND STABILITY OF MOTION OF DYNAMICALLY VARIABLE OBJECTS (in Serbian: KRETANJE DINAMIČKI PROMENLJIVIH OBJEKATA I NJEGOVA STABILNOST), Doctoral Thesis, Publ. University of Belgrade, p. 73 (1962) (Predato 1960; odbranjeno 28. 04. 1961, pred komisijom u sastavu: A. Bilimović, K. Voronjec, T. Anđelić i D. Rašković).

La correlation du principe de Pfaff - Bilimović avec les autres principes de mecanique, Publ. Inst. math, Nouvelle serie, T. 1(15), pp. 15-23 (1962), Beograd.
Math.Rev., Vol 32 (1966); Zbl. Math., Band 112 (1965); РЖ Mex., 8 A (1963); РЖ Mat., 10 B (1974).

TYPICAL PROBLEMS OF THEORETICAL MECHANICS AND METHODS OF SOLUTIONS (translation from Russian - Kabalsky et al. - in to Serban), p. 450, Zavod za izdavanje udžbenika SR Srbije (1962), Beograd.

1963

ANALYTICAL MECHANICS by F.R. Gantmacher (translation from Russian in to Serbian), p. 215, Zavod za izdavanje udžbenika SR Srbije (1963).

1964

Связь принципа Пфафф - Билимовича с другими принципами мешаники, "Механика" - Зборник переводов иностранных статей, Изд. "Мир", 2. 84 (1964), Москва.
РЖ Mex., 8 A (1964).

On the rotation of a body of variable mass (in Serbian, French summary), Mat. ves., 1(16), 2, pp. 119-126 (1964).

РЖ Mex., 11 A (1965); Zbl. Math., Band 141 (1968).

Une maniere d'obtenir les equations du mouvement a partir du principe de Gauss en coordonnees generalises, Matematicki vesnik, 1(16), Sv., 3., (1964).

РЖ Mex., 11 A (1965)

Opštost Gausovog principa u konfiguracionom prostoru, Jugoslovensko društvo za mehaniku, Vrnjačka Banja, (1964).

Une formulation variationnelle du principe de Hertz dans l'espace de configuration, Mat. ves., 1(16), 4, pp. 329-330 (1964).

Sur certaines questions de la mécanique analytique des systèmes non holonomes, C. R. Académie des Sciences, Paris, T. 259, pp. 709-711, groupe 2 (1964).

Math. Rev., Vol. 29, 4242 (1965); Zbl. Math., Band 131 (1967); РЖ Mex., 7 A (1965).

1965

Sur les oscillations des corps élastique - linéaires dans un milieu résistant, Mat. ves., 2(17), 3 (1965).

1966

Sur les propriétés tensorielles du "tenseur d'inertie" (in Serbian, French summary), Mat. ves., 3(18), 1, pp. 11-15 (1966).

РЖ Mat., 9 A480 (1967); Zbl. Math., Band 148 (1968).

De traitement geometrique du mouvement d'un système "a masse variable", le long des lignes geodesiques, Mat. ves., 3(18), 1, pp. 48-52 (1966).
РЖ Мат., 3 Б (1969); Zbl. Math., Band 215, Heft 2 (1971).

THEORY OF OSCILLATIONS (in Serbian: TEORIJA OSCILACIJA), p.435, edit. University of Belgrade, Press: "Savremena administracija" (1966), Beograd.

1967

On the covariant differential equations of motions of dynamical systems with variable mass, Tensor, Vol. 18, N. 2, pp. 181-183, (1967), Fujisawa.

Sur la stabilité de l'état d'équilibre du système dc points dynamiques d'une masse variable, Mat. ves., 4(19), 3, pp. 207-210 (1967).

РЖ Mex., 9. A85 (1968); Math. Rev., Vol. 37, 1119 (1969); Zbl. Math., Band 158 (1969).

1968

Критерий об устойчивости состояния равновесия систем динамических точек (The criterion for stability of equilibrium of systems of particles), Publ.Math.T.8(22), p. 69-72, 1968.
РЖ Мат., 3 Б185 (1969); Zbl. Math., Band 159 (1969); Math. Rev., Vol. 40, 2258 (1970).

К вопросу о динамической устойчивости упругих тел (On the problem of dynamical stability of elastic bodies), Мат. вес. 5(20), 3, pp. 275-278 (1968).

РЖ Mex., 4 B300 (1969); Math. Rev., Vol. 39, 1161 (1970).

General conditions of stability of the state of equilibrium of the dynamic sistem of a variable mass, Tensor, N. S., Vol. 19, pp. 314-316, 1968.

Über die stabilität der stationären Bevegungen, ZAMM - Zeitschrift für Angewandte Mathematik und Mechanik, GAMM - Tagung, Akademie - Verlag - Berlin, Band 48, pp. 291-293, 1968.

1969

Координатное n-мерное пространство метрический тензор которого явно зависит от времени (An n-dimensional coordinate space whose metric tensor depends on time), Publ. Inst. Math., T. 9(23), pp. 65-68 (1969).

Math. Rev., Vol. 40, 3766 (1970); РЖ Мат., 4 А693 (1970).

Общее следствие прямого метода Ляпунова об устойчивости (The general corollary of the direct Lyapunov's method of stability), Publ. Inst. Math. 9 (23), pp. 139-142, 1969.

Math. Rev., Vol. 40, 2259 (1970); Zbl. Math., Band 187, Heft 1 (1970); РЖ Мат., 3 5257 (1970).

STATIKA, p. 210., edit. Univerzitet u Beogradu, Press: Zavod za izdavanje udžbenika SR Srbije (1969), Beograd.

1970

Conditions de non-existence de trajectoires de phase fermées d'un système de points matériels, Publ. Inst. Math., T. 10(24), pp. 79-86 (1970).

РЖ Mex., 5 A117 (1971); Math. Rev., Vol. 43, N. 2, 2884 (1972); Zbl. Math., Band 267, 7, 35005 (1974).

Sur la théorie de l'intégration des équations différentielles du mouvement d'un système dynamique (in Serbian, French summary), Mat. ves., N. S., 7(22), 3, pp. 389-393 (1970).

Абсолютный интеграл тензора (The absolute integral of a tensor), Publ. Math. Inst. N. S., t. 10 (24), pp. 199-202, 1970.

Math. Rev., Vol. 42, 5484 (1972); Zbl. Math., Band 215, Heft 1 (1971); РЖ Mat., 5 5324 (1971); РЖ Mex., 4 A149 (1971).

Un critère de stabilité des solutions d'équations différentielles du mouvement d'un système mécanique, Congrès International des Mathématiciens, 242 (1970), Nica.

1971

Об одной возможности представления ковариантных и контравариантных координат вектора скорости (A new covariant and contravariant coordinate form of velocity), Mat. ves. 8(23), 4, pp. 387-389 (1971).

РЖ Mat., 7 A604 (1972).

Общее утверждение об устойчивости движения и состояния равновесия механических систем (The general theorem of stability of motion and equilibrium of mechanical systems), Publ. Inst. Math., t. 11(25), pp. 33-41, 1971.

Math. Rev., Vol. 46, 4818 (1973); Zbl. Math., 70011 (1972).

Covariant equations of disturbed motion of mechanical systems, Tensor, N. S., Vol. 22, pp. 41-47, Fujisawa, 1971.

РЖ Mat., 9 A629 (1971); Math. Rev., Vol. 44, 2390 (1972); Zbl. Math, Band 227, 70018 (1972).

Абсолютные интегралы дифференциальных уравнений геодезической (The absolute integrals of differential equations of a geodesic), Publ. Inst. Math., T. 12(26), pp. 143-148 (1971).

Math. Rev., Vol. 46, 6204 (1973); Zbl. Math, Band 227 (1972).

1972

Incompleteness and dependence system of axioms in statics (in Serbian, Russian summary), Tehnika, XXVII, N. 2, pp. 212-214 (1972).

A contribution to tensor calculus, Tensor, N. S., Vol. 25, pp. 375-382 (1972), Fujisawa.

Math. Rev., Vol. 48, N. 5, 9575 (1974); Zbl. Math., Band 53009 (1974); РЖ Mat., 1 A629 (1974).

Some first integrals of differential equations of motion of a mechanical system, Publ. Inst. Math., T. 14(28), pp. 157-162 (1972).

Math. Rev., Vol. 52, N. 3, 7250 (1976); Zbl. Math., Band 266, 70008 (1974); РЖ Mat., 12 13353 (1973); РЖ Mex., 2 A129 (1974).

O realnosti prvog postulata dinamike, "Dijalektika", časopis za opšte probleme matematičkih, prirodnih i tehničkih nauka, VII, 1, Univerzitet u Beogradu (1972).

1973

Некоторые общие интегралы нелинейных механических систем движения (Certain general integrals of nonlinear mechanical systems) (in Russian, Polish and English summaries), Nonlinear vibration problems, Polish Academy of Sciences, t. 14, pp. 369-377, 1973.

РЖ Mex., 3 A105, A106 (1973); Zbl. Math, 70019.

1974

Ковариантные интегралы одной дисипативной системы (Covariant integrals of certain dissipative dynamical systems), Publ. Inst. Math., T. 17(31), pp. 183-189 (1974).

Math. Rev., 9745.

General finite equations of geodesics, Tensor, N. S., Vol. 28, pp. 259-262 (1974), Fujisawa.
Math. Rev., 11066; Zbl. Math., 53020.

Ковариантные интегралы в механике, ПММ - прикладная математика и механика, Т. 40, Вып. 2, АН СССР, pp. 346-351 (1976), Москва.

A quarter of a century of the Mathematical institute in Beograd, Uvodnik Bulletin Scientifique, Section A, Conseil des Académies des Sciences et des Arts de la RSF de Yougoslavie, T. 17, N. 3-4 (1974).

Prilog opštoj mehanici, Tehnika - Opšti deo, XIX, N. 8 (1974), Beograd.

1975

Covariant equations of the geodesics on certain surfaces (in Serbian, Russian summary), Mat. ves. 12(27), pp. 399-409 (1975).

Mat. Rev. Vol., 53, N. 2, 3909 (1997); Zbl. Math, Band 344, 53005 (1977).

1976

Ковариантные интегралы в механике, ПММ - Прикладная математика и механика, т. 40, Вып. 2, АН СССР, pp 346-351, Москва, 1976.

Covariant integrals in mechanics, PMM - Journal of App. Mech. 40, pp. 320-326, 1976.
(Translation of the Soviet journal Прикладная математика и механика), Publ. Pergamon - press, Oxford, Toronto.

Dinamičko svojstvo materije, Srpska akademija nauka i umetnosti, Naučni skupovi, Odeljenje društvenih nauka, 3 (1976).

Masa i materija, Izd. preduzeće "Rad" (1976), Beograd.

1977

Analytical criterion for stability of motion of rheonomic systems (in Serbian, English summary), Glas CCCI de l'Académie serbe des Sciences, Classe des sci. math. et, nat., N. 41, pp. 83-91 (1977).

THEORY OF OSCILLATIONS (in Serbian), second revised edition, p. 462, edit. University of Belgrade, Press "Naučna knjiga" (1977), Beograd.

1978

On the stability of the control motion of mechanical systems (in Serbian), Proc. of Conference of Motion, Soc. Mech. Serbe (1978).

О квазилинейным колебаниям механической системы (On quasi – linear oscillations of mechanical systems) (English summary), Teo. prim. Meh. N. 4, pp. 165-170 (1978).
Zbl. Math, Band 426 (1980); Math. Rev., e: 70031 (1980); РЖ Mex., 4 A136.

Klasična mehanika i upravljanje kretanjem (Classical mechanics and control of motion) (in Serbian, Russian summary), XIV Jugoslovenski kongres racionalne i primenjene mehanike, K-5 (1978), Portorož.

1979

Covariant differentiation of a scalar over a vector (in Serbian), Mat. Ves. 3(16)(31), pp. 357-360 (1979).

Math. Rev., 82e: 53031 (1982).

Optimalno upravljanje kretanjem holonomnog sistema, Glas Srpske akademije nauka i umetnosti (1979).

Приложение к дифференциальным формам Пфаффа - Билимовича (A contribution to Pfaff - Bilimovich differential forms), Teo. prim. meh. N. 5, pp. 174-179 (1979).
Math. Rev., g: 49031 (1981).

1980

Об интеграле энергии систем стесненных нестационарными связями (On the energy conservation theorem of a system with rheonomic constraints), Teo. prim. meh., N. 6, pp. 133-143 (1980).

Math. Rev., 3.2 70014 (1983).

Transformation of position vector coordinates (in Serbian, English summary), Tehnika - Opšti deo, XXXV, N. 6, pp. 6-16 (1980).

К решению системы квазилинейных дифференциальных уравнений (On the solution of systems of quasilinear differential equations), Mat. Ves. 4(17)(32), pp. 439-442 (1980).

Math. Rev., d: 34036 (1984).

1981

Optimal control of motion of a holonomic system, Bulletin de l'Academie Serbe des Sciences, LXXVI, N. 11, pp. 1-10, 1981.

The energy integrals of a rheonomic system (in Serbian), Glas CCCXXIV de l'Académie serbe des Sciences, Classe de sci. math. et. nat., 47 (1981).

РЖ Mat., 3 13836 (1983).

COVARIANT DYNAMICS (in Serbian: KOVARIJANTNA DINAMIKA) (English summary), Mat. Inst. Serbian Acad. Sci., Editions speciales, 14, pp. 136, Beograd, 1981.

1982

On the stability of the system with generalized potential, Teo. prim. Meh., N. 8, pp. 139-141 (1982).

РЖ Mex., 5 A38 (1983); Zbl. Math., Band 430, 70006; Math. Rev., d: 70030 (1984).

The problem of stability of motion (in Serbian), Modern problems of general stability and the stability of continuum, Proc. Soc. Mech. Serbe (1982).

Laws of natural sciences (in Serbian: Zakoni u prirodnim naukama), "Dijalektika", časopis za opšte probleme matematičkih, prirodnih i tehničkih nauka, XVI, N. 1-4, Univerzitet u Beogradu (1972).

1983

DIDACTIC MATERIAL FOR PHYSICISTS, Part - MECHANICS, Zav. za udžb. i nast. sred. (1983), Beograd.

Analysis of amplitudes of resonant oscillations, Tehnika - Opšti deo, XXXVIII (1983).
РЖ Mex., 12 A151 (1983).

On the minima of the moment impuls, Recueil des travaux de l'Inst. Math., Nouvelle série, T. 4(12), pp. 233-235 (1984).

The contribution to the solution of integro - differential equations of oscillations of elastic bodies (in Serbian), Proc. Soc. Mech. Serbe (1983).

1984

On the theory of integration of tensor differential equations by the absolute-integral method. (*English. Russian original*) Mosc. Univ. Mech. Bull. 39, No. 5, 28–33 (1984); translation from Vestn. Mosk. Univ., Ser. I 1984, No. 5, 63–67 (1984).

On the absolute integral in n-dimensional configuration space, Topics in differential geometry, Vol. I, II, pp. 1297-1308 (1984), Debrecen; Colloq. Math. Soc. Janos Bolyai, 46. North Holland (1988), New York.

Sur le principe du maximum dans la mecanique classique (English summary), Teo. prim. meh., N. 10, pp. 153-158 (1984).
Math. Rev, 88f: 70015.

On the maximum principle in mechanics, Proc. XVI Yugoslav Congress Mech., A1 (1984), Bečići.

Invariance of D'Alembert's principle, Bulletins for Applied Mathematics (BAM) 218/84, Budapest, 1984.

O principu maksimuma u mehanici, A-1, 16. Jugoslovenski kongres teorijske i primenjene mehanike, tr. 1-7, Bečići, 1984.

On the principle of invariance, Proc. XVI Yugoslav Congress Mech. A1 (1984), Bečići.

On self - rotations of celestial bodies, Proc. XVI Yugoslav Congress Mech. A1 (1984), Bečići.

1985

К теории интегрирования тензорных дифференциальных уравнений (On the theory of integration of tensorial differential equations), Ves. Moscow University; ser. math. mech., 1985.

Об инвариантности принципов в механике (On the invariance of the principles on mechanics) (in Russian, English summary), Teo. prim. Meh. N. 11, pp. 155-168 (1985).
Zbl. Math., Band 603, 70001.

Mechanical power and rheonomic constraints change force, II Simpozijum teo. prim. meh. (1985), Skopje.

1986

Stability of steady motions of systems with general potential (in Serbian, English summary), Glas de l'Academie Serbe des Science, 346, 50, pp. 1-7, 1986.

The potential and power of rheonomous constraints, Bulletins for Applied Mathematics, BAM 355-381/86, Budapest.

On the equilibrium of rheonomic systems (in Serbian, English summary), Tehnika - Opšti deo, XLI, N. 7-8, pp. 683-687 (1986).

On the Gauss' principle, Bull. Appl. Math, 44, N. 436, pp. 155-162 (1986).
Zbl. Math, Band 656, 70009 (1989).

Prilog teoriji o nastanku rotacije nebeskih tela, Zbornik radova XVII Jugoslovenskog kongresa mehanike, A - Opšta mehanika, pp. 1-6 (1986), Zadar.

The covariant integration on manifolds, Tensor, Vol. 43, N. 3, Chigasaki, 1986.
РЖ Мат., 2 A757 (1988).

STATIKA, II izdanje, Univerzitet u Beogradu, (1986).

1987

Одно следственные инвариантности принципа Гаусса, Прикладная математика и механика, т. 51, вып. 5, стр. 735-740, Москва, 1987.

A contribution to the kinetics of self-rotation of celestial bodies (in Serbian: Prilog kinetici samorotacije nebeskih tela) (English summary), Tehnika Opšti deo, XLII, N. 5-6, PP. 499-506 (1987).

The tensorial equations of self-rotation of celestial bodies, Tensor, N. S., Vol. 44, N. 1, pp. 96-102 (1987), Chigasaki.

РЖ Mex., 4 A63 (1988); Zbl. Math., Band 643, 70007 (1988).

On Newton's axiomatics (in Serbian: O Njutnovoj aksiomatici), Zbornik simpozijuma - Njutnova Philosophia naturalis, pp. 237-299 (1987), Kragujevac.

Newton's principles of philosophiae naturalis (in Serbian, English summary), Tehnika - Opšti deo, XLII, N. 11, pp. 1007-1014 (1987).

On the origin of rotation of a celestial body, BAM 519/87 (XLVIII), Budapest.

The modification of analytical dynamics of rheonomic systems, Tensor, N. S., N. 46, pp. 418-432, Chigasaki, 1987.

Zbl. Math., Band 677, 70019 (1990)

MECHANICAL ENGINEERING, hand book, 1, II Mechanics, Zavod za izdavanje udžbenika, pp. 165-234 (1987), Beograd.

1988

On Hamilton's principle for the rheonomic systems, Bulletin de l'Academie Serbe des Sciences, Classe des sci. math. et nat., N. 16, pp. 37-50, 1988.

Zbl. Math., Band 647, 70019 (1989); РЖ Mex., 7 A35 (1989); Math.Rev., b: 70025 (1990); РЖ Mat., 9 B382 (1989).

Dinamika reonomnih sistema, Zbornik radova XVIII Jugoslovenskog kongresa teorijske i primenjene mehanike, A-8, pp. 29-32 (1988), Vrnjačka banja.

К принципу возможных перемещений для реономных систем (The principle of least action for rheonomic systems), Прикладная механика., Т. 24, N. 7, Акад. наук Украинской ССР, pp. 114-116 (1990), Киев.

Math. Rev., i: 70016 (1991).

Pfaff - Bilimovich's method or principle (in Serbian), Zbornik radova Maš. fak. (1988), Titograd.

Law in philosophia naturalis, Philosophia naturalis today - Prirodne nauke danas (1988), Niš.

On the origin of rotation of a celestial body, Celestial Mechanics (An International Journal of Space Dynamics), Vol. 44, N. 1-2, pp. 45-48, Kluwer Acad. Publ. (1988/89), Dordrecht - Boston - London.

1989

Lagrange's general principle and Hertz's basic law (in Serbian), Zbornik simpozijuma "Stoleće elektromagnetnih talasa", pp. 163-172(1988), Kragujevac.

On the stability of motion of rheonomic systems, Proc. of the International Conference on Applied Mechanics, The addresses on autors, 1989, Beijing, China, 1989.

A consequence of the invariance of the Gauss principle, PMM Journal of applied mathematics and mechanics (translation of the Soviet journal Прикладная мат. и мех.), Vol. 51, N. 5, pp. 573-578; Printed in Great Britain, Pergamon Press, 1989.

Math. Rev., d: 70044 (1990); Zbl. Math, Band 679, 70008 (1990).

On the energy integral of variable mass systems (in Serbian, English summary), Tehnika - Opšti deo, XLIV, N. 10, pp. 733-735 (1989).

Об устойчивости в непотенциальном силовом поле (On equilibrium stability in a nonpotential force field), Teo. prim. meh., N. 15, pp. 139-145, 1989.

Institutional development of the teaching of mechanics in Belgrade (1945-1982) (in Serbian), Istorijski spisi iz matematike i mehanike, Mat. inst. 2, pp. 85-106 (1989).

Math. Rev., e: 1001 (1991).

1990

DYNAMICS OF RHEONOMIC SYSTEMS, Mat. Inst. Serbian Acad. Sci., editions speciales, pp. 96, Beograd, 1990.

The Poisson's brackets for rheonomic systems (Poisson-ave zagrade u reonomnim sistemima), XIX Jugoslovenski kongres mehanike, A - Opšta mehanika, pp. 1-6 (1990), Ohrid.

К принципу возможных перемещений для реономных систем, Прикладная механика, Т. 24, Н. 2, pp. 125-127, Киев, 1990.

О принципе наименьшего действия для реономных систем (The principle of least action for rheonomous systems), Прикладная механика, т. 26, Н.7, pp. 114-116, Киев, 1990.

1991

НЕКОТОРЫЕ ЗАДАЧИ МЕХАНИКИ НЕАУТОНОМНЫХ СИСТЕМ (Some Problems of Mechanics of Nonautonomous Systems) (co-author A.A. Martinyuk). Matematički institut SANU, Beograd - Institut za mehaniku AN Ukrajine, Kijev, pp109, 1991.

A theorem in the problem of optimal control of mechanical systems, Comptes rendus de l'Academie des Sciences, Paris, t. 313, serie II, N. 1, pp. 1-5, 1991.

К задаче Ляпунова об устойчивости по отношению к заданным функциям состояния, (коавтор В.В. Козлов), Прикладная мат. и мех. Т. 55, вып 4, стр.555-559, Москва, 1991.

The cocyclic energy integral, European Journal of Mechanics, A 10, N. 1, pp. 41-44, Paris, 1991.

Motion of nonholonomic rheonomic systems (in Serbian, English summary), Tehnika, XLVI, pp. 569-574 (1991).

РЖ Mex. 9, P5 (1992).

On the Lyapunov's problem of stability in comparations with functions of state, Journal of applied math. and mech. (translation of the PMM), Vol. 51, N. 5, 1991.

1992

On the Poisson-Jacobi's method in non-autonomous systems, (co-author T.P. Andelić), Bulletin de l'Academie Serbe des Sciences, Classe des sci. math. et nat., N. 18, pp. 7-12, 1992.

A general theorem of optimal control of motion of mechanical non-autonomous systems, XVIII International Congress of Theoretical and Applied Mechanics, pp. 154, Haifa, 1992.

О практической устойчивости равновесия и движения механических систем (On the practical stability of equilibrium and motion of mechanical systems), Прикладная механика, т. 28, Н. 11, pp 64-69, Киев, 1992.

MECHANICAL - ENGINEERING, hand book, 1, II MECHANICS, second ed., Zavod za izdavanje udžbenika, pp. 165-234 (1992), Beograd.

О практической устойчивости голономных систем (Practical stability of holonomic systems), Докл. Акад. наук Украины, Н. 9, pp21-23, Киев, 1992.

A universal integral invariant of non-autonomous dynamical systems, Proc. First World Congres of Nonlinear Analysis (WCNA.92), Tampa, Florida, 1992, 1357–1360.

1993

The principle of optimal motion, Proc. of the 2nd International Conference on Nonlinear Mechanics, pp. 737-740, Beijing, China, 1993.

The rheonomic constraints force, (co-author K. Hedrih), Facta Universitatis, Vol. 1, N. 3, pp. 313-322, 1993.

1994

Optimal control of rheonomic mechanical system, Facta Universitatis, Vol. 1, N. 4, pp. 413-423, 1994.

On the variation of rheonomic constraints (in Serbian: O varijaciji reonomnih veza), Tehnika - Naše građevinarstvo, XLIX, N. 8-9, NG1-NG5 (1994).

1995

On the theory of rheonomous systems (co-author V. V. Kozlov). (*English. Russian original*) Mosc. Univ. Mech. Bull. 50, No. 5, 21–26 (1995); translation from Vestn. Mosk. Univ., Ser. I 1995, No. 5, 79–85 (1995).

Об однородном формализме классической динамики реономных систем, Електронное моделирование, т. 17, Но 4, pp 10-14, 1995.

Energy exchange theorems in systems with time-dependent constraints, teo. prim. Mehanika, 21, pp. 105-121, 1995.

1996

On the optimal control and stability of rheonomic mechanical systems, International conference "Stability, control and rigid bodies dynamics", Donetsk (Ukraine), 1996.

К аналитической динамике управляемых систем (co-author A.A. Martinyuk). Прикладная механика, 32, Но 9, pp 88, 1996.

Prilog mehanici deformabilnih tela, Tehnika, godina LI, pp11-12, NG 1-6, 1996.

Conteporary problems of fluid mechanics, Beogradski univerzitet, 1996.

A contribution to the theory of rheonomic systems, Bulletin T. CXI de l'Academie Serbe des Sciences et Arts - classe des Sciences Mathematiques et naturelles, Sciences Mathematiques, No 21, pp. 85-91, 1996.

A Deformation body as a Model of Reconomic Sistem, Beogradski univerzitet, 1996.

1997

O kretanju dva tela (Abstract – One approach to problem of two and more bodies), A – Opšta mehanika, Zbornik radova, YUCTAM, pp. 1-6, 1997.

Some comments on the theory of deformation bodies, Solid Mechanics - Proceeding of Second Serbian – Greek Symposium on Solid Mechanics, 1996, (Scientific Meetings of the Serbian Academy of Sciences and Arts, Vol. LXXXVII, Department of Technical Sciences, Book 3), pp. 77-86, 1997.

A possible Reconsiderasir of Newton Gravitation Law, Scientific Review, N. 24, pp. 61-68, 1997.

On the Homogeneous formalism in celestial mechanics (coauthor Z. Drašković), Facta Universitatis 2:7/2, 401–408.

1998

The Principle of Action, Recent advances in Mechanics, Xanthi, Grece, 1998.

Non-standard Interpretation of Newton's and Lagrange's Mechanics, 3-th Int. Sym. on Classical and Celestial Mechanics, Velikie Luki, Rusija, 1998.

1999

Preprinciples of Mechanics. Posebna Izdanja. Matematički Institut, Beograd. 19. Belgrad: Matematički Institut SANU. 227 p. (1999).

The principle of Action, Facta Universitatis, Series Mechanics, Automatic Control and Robotics, Vol. 2, No 9, 1999, 843–846

Rheonomic tangent and cotangent bundles and speed, Theor. Appl. Mech. 25, pp. 145-160, 1999.

On the control in mechanical system, Ustoicivost upravlenie i dinamika tverdogo tela, Tezisy dokladov VII Meyhdunarodnoi konferencii, 49-50, Doneck, 1999.

2000

O nestandardnim relacijama teorijske fizike, 10. kongres fizičara Jugoslavije, Zbornik radova, Knjiga I, 499-506, 2000.

Action of force - Formality or Essence, Facta universitatis, series: Mechanics, automatic Controle and Robotics, Vol. 2., No 10, pp. 1021-1034, 2000.

Controllability and decomposition in mechanical systems (co-author A. Kovalev), J. Appl. Math. Mech. Vol. 64, No 1, pp. 25-34, 2000.

Stability of solution of dynamic systems in classes of mappings systems in classes of mappings, "Stability and control for nonlinear transforming systems, II International conference", p. 15, Moskva, 2000.

2001

O uopštenju Njutnove sile gravitacije, FLOGISTON - časopis za istoriju i kulturu nauke, broj 11, str. 77-107, Beograd, 2001.

2002

On the principle of action and counteraction, Second international Congress "Nonlinear Dynamical analysis (NDA)", p. 142, Moscow - Russia, 2002.

2004

On two Fundamental Statements of Mechanics, Interational Journal on Nonlinear Sciences and Numerical Simulation 5(3), 283–286, 2004.

2005

Modification of the characteristic gravitation constants, Astronomical and Astrophysical Transactions, Taylor & Francis, Vol 25, Number 4; 2005.

On a generalization of Kepler's third law, Astronomical and Astrophysical Transactions, Vol. 24, No. 6, Taylor & Francis, 2005, 489-495.

2008

The contribution to the theory of Celestial Mechanics problems of two and three bodies, VI Serbian - Bulgarian Astronomical Conference, (VI SBAC), Beograd, 2008.

2009

Dynamical Paradox in Theory of Lunar Motion & Numerical Simulation, v.2, No 10, pp 489-495, 2009.

One solution of the problem three bodies, Международная конференция "5 Поляковские чтения", Избранные труды, Санкт Петербург, 2009, pp. 159-163.

Dynamical Paradox in Theory of Lunar Motion, International Journal of Nonlinear Sciences and Numerical Simulation, Vol.10 (11–12), 1539-1544, 2009.

Non consonance in theory of Mechanics, International Congress Serbian Society of Mechanics, (plenarno), Palić, Subotica. 2009.

Matematički ili Dinamički sistemi - Mathematical or Dynamical Systems. SYM-OP-IS, XXXVI Sympozijum o operacionim istraživanjima. Zbornik radova. XXIII-XXVI, 2009.

2011

The tensor integral and applied in Analytical Mechanics. TENSOR, N.S. Vol.73 (2011).

2012

Earth's gravity sphere, Int. J. Applied Physics, JSSN, Volumen 2, 97-105, 2012.

Modification of the Equation of Planetary systems motion. 2nd International Conference, Contemporary problems of Mathematics, Mechanics and Informatics. 2012.

2014

Four-dimensional space with geometric constraints, Monografija 4, Prilog nelinearnim naukama, JANN, Beograd, 2014.

PREPRINCIPI MEHANIKE, Drugo elektronsko popravljeno izdanje (Prof. Dr D. Zeković), Matematički institut SANU i Zavod za udžbenike, Beograd, 2014.

MOND - MDdifikacija Njutnovske Dinamike, izdanje autora, Beograd, 2014 .