

STATEMENT OF BACKGROUND
VICTOR F. EDNERAL

Skobeltsyn Institute of Nuclear Physics of
Lomonosov Moscow State University

Leninskie gory 1,

Moscow 119991 Russia

Phone: +7 (495) 939-3156

Cellular phone: +7 (916) 384-7862 Fax. : +7 (495) 939-3173

E-mail: edneral@theory.sinp.msu.ru

May 2009

I am Victor Fedorovich Edneral and I was born on the 1st of December 1952 in Moscow. I am Russian and I have the passport 70 1611484, exp. 08.10.2013. I am married to Irina Victorovna Edneral, we live in Moscow. Irina obtained her Ph.D. degree in 1983 on the subject "Investigation of anisotropy of molecular rotation in liquids by NMR methods".

In 1976 I graduated from the Physics department of Moscow University. After that I took a post graduate course at the division of High Energy Physics and Quantum Theory of the Physics department of the university. I specialized in theoretical and mathematical physics. Since 1979 I have been working in the Skobeltsyn Institute of Nuclear Physics of Lomonosov Moscow State University (SINP MSU), now as a senior researcher.

In 1977, 1978 and 1979 I was Vice-head of Organizing Committee and Vice-president of Jury of Moscow Olympiad on Physics for secondary schools.

In 1981 I obtained the degree of "Candidate of Physical and Mathematical Sciences" (this is Russian analog of a Ph.D. degree). My thesis dealt with theoretical description of spin effects in high energy hadron-hadron scattering. The complex algebraic calculations involved in this research required using the computer algebra system REDUCE. This experience allowed me to give lectures and conduct practical classes for undergraduate students on symbolic programming since 1982. These lectures were the main basis of my book about the REDUCE system which had its second edition in 1989. In 1983 the Laboratory of Symbolic Calculations for High Energy Physics was created in the SINP on the basis of our group.

Besides lecturing on computer algebra since 1983 I have been conducting lessons with undergraduate students of the Physical department in classical electrodynamics. Under my supervision one Ph.D. theses was successfully represented on December of 1993 by Vera Vasilievna Smirnova on the subject: "The Investigation of Mechanism of Attractors Arising at a Number of Dynamical Systems and the Visualization of its Behavior".

Since 1984 I have been interested in the investigation of nonlinear systems

of ordinary differential equations (ODE) by computer algebra methods. I created an algorithm for normalizing transformations for systems of ODE with a polynomial nonlinearity. This approach demands enormous algebraic transformations and thus it is a good object for symbolic calculations. One of the results of such calculations is (for relevant systems) the approximation of periodic solutions of system of ODEs in the form of a truncation of Taylor's – Fourier's series. As a consequence I dealt with the automatic Generation of FORTRAN codes for later numerical calculations of such series as functions of time and parameters. These problems were basis of my interest during my visit to University of Bath (England). I worked there under professors James H. Davenport and John P. Fitch for 10 months in 1987-1988 while being supported by the British Council.

Since the end of 1988 our laboratory has started creating CompHEP - a large computer system for symbolic calculations in High Energy Physics <http://comphep.sinp.msu.ru> and I participate in this project. Since 1990 the CompHEP group collaborated with KEK - the Japanese national laboratory for high energy physics. So I worked for the summer of 1993 in Japan.

From March until December of 1994 I have worked as a visiting Professor at the Group for Computer Algebra and Algorithms at the Mathematic Institute of Federal University of Rio Grande do Sul, Brazil. (The grant CNPq of Brazil, project #300894/93-7).

In spring 1996 I had a 3 months Professor position at Lillie University for Sciences and Technologies in France.

In 1998–2001 I had a Professor position in Computer Science at Moscow State University of Commerce.

In 2002 I with respect a grant of the London Mathematical Society I spend one month in the Institute of applied mathematics and theoretical physics in Cambridge. With Dr. R.Khanin we created a program package for building the normal forms for the Mathematica system.

Since 2003 I also work for the RDIG (Russian Data Intensive GRID) and a member of European projects EGEE, EGEE-1, EGEE-2, EGEE-3 (Enabling GRID for E-science). With respect of this line I had in 2004 a 1.5 months research position at INFN in Padua, Italy.

I was an organizer of a session on the normal form method in the theory of ODEs at the IMACS Conference on Applications of Computer Algebra (ACA, May 16-20, 1995, Albuquerque, NM, USA) and an organizer of a session on formal series applications and dynamical systems at the second such Conference (ACA July, 17-20, 1996. Linz, Austria). I was also a Program Co-Chair of this conference and sessions organizer in 1998 (Prague), 1999 (Madrid), 2000 (St. Petersburg) and in 2006 (Varna). I am a member of the Applications of Computer Algebra Work Group (ACAWG) of this conference.

I was a member of the Program Committee of CASC-98 (International workshop on Computer Algebra in Scientific Computing) (April, St. Petersburg, Russia), CASC-99 (April, Munich, Germany), CASC-2000 (October, Samarkand, Uzbekistan), CASC-2001 (September, Konstanz, Germany), CASC-2002 (September, Yalta, Ukraine), CASC-2003 (September, Passau, Germany), CASC-2004 (July, St. Petersburg, Russia), CASC-2005 (September, Kalamata, Greece), CASC-2006 (September, Chisinau, Moldova), CASC-2007 (September, Bonn, Germany), CASC-2009 (September, Kobe, Japan).

I was also a Program chair of Workshop on Computer Algebra and Differential Equations (CADE) 1997 (Prague, Czech) and CADE 2007 (Turku, Finland).

I was supported by the following grants last years: ISF, grant M9B000; INTAS, project 93-1180; RFBR (Russian Fond for Basic Research), 93-02-14428, 96-01-01860; 98-02-17699-a; 06-01-10693-z; 07-07-12023-ofe; 08-01-00082-a; 08-07-00294-a; CERN-INTAS 03-52-4297. Since 2002 I am supported by a grant of the President for support of leading scientific schools (the School by academician A. Logunov).

I am author of more than 86 scientific papers, including 2 editions of a book and 50 articles in archival-journals and reviewed proceedings of conferences. I was invited editor of two special issues of the journal "Mathematics and Computers in Simulation", Elsevier Science, vol. **45**, numbers 5-6 (1998) and vol. **57**, numbers 3-4 (2001).

One of my main scientific interests now is an investigation and creation of precision analytic approximations for families of solutions of systems of nonlinear ODEs, including searching periodic and conditionally periodic families embedded in domains of chaotic behavior for high dimensional dynamical systems. Now I also deal with investigation of local integrability and nonintegrability of systems of nonlinear ordinary differential equations by the normal form method.

List of Published Papers

1

1. Edneral V.F., Troshin S.M., Tyurin N.E., Khrustalev O.A., *Description of elastic scattering in U -matrix method*. Preprint of Institute for High Energy Physics (IHEP) 75–83, Serpukhov, 1975, p. 18.
Edneral V.F., Troshin S.M., Tyurin N.E., Khrustalev O.A., *Description of elastic scattering in U -matrix method*. Lett. to Sov. Journal of Experimental and Theoretical Phys., v.22, #6, Moscow, 1975, pp. 347–350. In Russian.
2. Edneral V.F., Troshin S.M., Tyurin N.E., Khrustalev O.A., *Elastic scattering in the U -matrix method*. Preprint CERN TH.2126, Geneva, 1976, p. 26.
3. Edneral V.F., Troshin S.M., Tyurin N.E., πN -scattering in the framework of the generalized reaction matrix method. Preprint IHEP 76–54, Serpukhov, 1976, p. 25.
Edneral V.F., Troshin S.M., Tyurin N.E., *Description of πN -scattering in method of generalized reaction matrix*. Sov. Journal of Nucl. Phys., v. 25, #5, Moscow, 1977, pp. 1071 – 1079. In Russian.
4. Edneral V.F., Troshin S.M., Tyurin N.E., Impact parameter analysis of elastic scattering. Preprint IHEP 78-123, Serpukhov, 1978, p. 15. In Russian.
Edneral V.F., Troshin S.M., Tyurin N.E., *Analysis of the elastic scattering in the impact parameter representation*. Sov. Journal of Nucl. Phys., v.30, #4(10), Moscow, 1979, pp. 1109–1116. In Russian.
5. Edneral A.F., Edneral V.F., *Computer program OMEGA for orientational microelectronographic analysis*. State Fund for algorithms and programs. All-Union center for a science and technique information. Reg. number P003362. Moscow, 1978, p. 25. In Russian.
6. Edneral V.F., Troshin S.M., *Analysis of elastic scattering in the method of the generalized reaction matrix*. XI International School of Young Scientists on High Energy Physics and Relativistic Nuclear Physics (Gomel, 1977). Dubna, Joined Institute for Nuclear Researches (JINR) Publ., 1979, pp. 435–463. In Russian.

¹The list does not contain abstracts

7. Edneral V.F., Troshin S.M., *The influence of spin on angular distributions at large momentum transfer*. Preprint IHEP 78–122, Serpukhov, 1978, p. 19. In Russian.
 Edneral V.F., Troshin S.M., *The influence of spin on angular distributions at large momentum transfer*. Sov. Journal of Nucl. Phys., v.30, #1 (7), Moscow, 1979, pp. 227–235. In Russian.
8. Edneral V.F., Troshin S.M., Tyurin N.E., *On expansion of scattering amplitude at large momentum transfers*. Preprint IHEP 79–43, Serpukhov, 1979, p. 14.
 Edneral V.F., Troshin S.M., Tyurin N.E., *On expansion of scattering amplitude at large momentum transfers*. Proceedings of the International Seminar on High Energy Physics and Quantum Field Theory (Protvino, July 1979), ed. by Mestvirishvili M.A. and Razumov A.V. pp. 214–225, IHEP, Serpukhov, 1980.
 Edneral V.F., Troshin S.M., Tyurin N.E., *On expansion of scattering amplitude at large momentum transfers*. Sov. Journal of Theoretical and Mathematical Phys., v.44, #1, Moscow, 1980, pp. 138–149. In Russian.
9. Edneral V.F., Troshin S.M., Tyurin N.E., *On spin effects in elastic scattering at large momentum transfers*. Preprint IHEP 79–90, Serpukhov, 1979, p. 9.
 Edneral V.F., Troshin S.M., Tyurin N.E., *On spin effects in elastic scattering at large momentum transfers*. Letters to Sov. Journal of Experimental and Theoretical Phys., v.30, #6, Moscow, 1979, pp. 356–360. In Russian.
10. Edneral V.F., Troshin S.M., Tyurin N.E., *Singularities in the impact parameter plane and expansion of the scattering amplitude at large momentum transfers*. Preprint IHEP 79 - 144, Serpukhov, 1979, p. 15. In Russian.
11. Edneral V.F., Troshin S.M., Tyurin N.E., *On expansion of single-particle inclusive cross section in the range of large momentum transfers*. Preprint IHEP 79 – 188, Serpukhov, 1979, p. 12. In Russian.
12. Edneral A.F., Edneral V.F., *Orientalional microelectronographic analysis of two-phase crystalline structures by the use of a computer*. Sov. Journal of Crystallography, v.25, #1, Moscow, 1980, pp. 48–54. In Russian.

13. Edneral V.F., Troshin S.M., Tyurin N.E., *Elastic scattering at superhigh energies and unitary relation consequences for amplitude*. Preprint IHEP 80–81, Serpukhov, 1980, p. 21. In Russian.
14. Edneral V.F., *Analysis of elastic scattering of hadrons and spin effects at high energies*. Essay of PhD thesis. Preprint IHEP 80–182, Serpukhov, 1980, p. 12. In Russian.
Edneral V.F., *Analysis of elastic scattering of hadrons and spin effects at high energies*. PhD thesis. Moscow, 1980, p. 120. In Russian.
15. Daragan V.A., Zlokazova I.V., Edneral V.F., *Correlation times of rotational movement of liquid NN - dimethylformamide molecules*. Sov. Journal of Experimental and Theoretical Chemistry., v.16, #6, Kiev, 1980, pp. 752–758. In Russian.
16. Edneral V.F., Troshin S.M., Tyurin N.E., *Spin effects in elastic scattering at high energies*. Proceedings of the International Symposium on Polarization Phenomena in High Energy Physics. JINR, Dubna, 1982, pp. 119 –124. In Russian.
17. Edneral V.F., Kryukov A.P., Rodionov A.Ya., *Language for symbolic calculations REDUCE. Part I*. Moscow Univ. Publ., Moscow, 1983, p. 83. In Russian.
18. Edneral V.F., Kryukov A.P., Rodionov A.Ya., *Language for symbolic calculations REDUCE. Part II*. Moscow Univ. Publ., Moscow, 1986, p. 78. In Russian.
19. Alekseev A.I., Edneral V.F., *Tensor structure of axial gauge polarization operator in the infra-red region*. Preprint IHEP 86–46, Serpukhov, 1986, p. 15. In Russian.
20. Edneral V.F., Khrustalev O.A., *Normalizing transformation for systems of nonlinear ordinary differential equations*. International Conference on Computer Algebra and its Applications in Theoretical Physics (Dubna, September 1985), ed. by Rostovtsev V.A. JINR D11–85–791, Dubna, 1986, pp. 219 – 224. In Russian.
21. Alekseev A.I., Edneral V.F., *Method for expansion of effective action of gluon field in the infra-red region. Two-loop term of polarization operator in the light-like gauge*. Problems on High Energy Physics and Field Theory. Proceedings of the IX Workshop (Protvino, July 1986), ed. by Saveliev M.V. Moscow, "Nauka" Publ., 1987, pp. 78– 89. In Russian.

22. Alekseev A.I., Edneral V.F., *Tensor structure of gluon polarization operator in the axial gauge for infra-red region*. Sov. Journal of Nucl. Phys., v.45, #4, Moscow, 1987, pp. 1105–1114. In Russian.
23. Alekseev A.I., Edneral V.F., *On evaluation of the Feynman integrals in the axial gauge*. Preprint IHEP 87–118, Serpukhov, 1987, p. 6. In Russian.
24. Edneral V.F., Kryukov A.P., Rodionov A.Ya., *Language for symbolic calculations REDUCE*. Moscow Univ.Publ., Moscow, 1989, p. 177. In Russian.
25. Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Kryukov A.P., Pukhov A.E., Rodionov A.Ya., Savrin V.I., Slavnov D.A., Taranov A.Yu., *CompHEP - computer system for calculation of particle collisions at high energies*. Institute for Nuclear Physics of Moscow State University (INP MSU), Report 89-63/140, 1989, Moscow, 1989, p.16.
26. Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Kryukov A.P., Pukhov A.E., Savrin V.I., Taranov A.Yu., *CompHEP package*. Brief Descriptions of INP MSU Software, ed. by Romanovskii E.A., Savrin V.I., Moscow Univ. Publ., 1989, pp. 81–87. In Russian.
27. Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Kryukov A.P., Pukhov A.E., Savrin V.I., Taranov A.Yu., *Computer interactive system for calculations of particle collision characteristics at high energies*. Proceedings of IV International Conference on Computer Algebra in Physics Research (Dubna, May 1990), ed. by Shirkov D.V., Rostovtsev V.A., Gerdt V.P., World Scientific Publ., 1992, pp. 63–65.

Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Kryukov A.P., Pukhov A.E., Savrin V.I., Taranov A.Yu., *Computer interactive system for calculations of particle collision characteristics at high energies*. New Computing Techniques in Physics Research, ed. by Perret- Gallix D., Wojcik W., Proceedings of International Workshop on Software Engineering, Artificial Intelligence and Expert Systems for High Energy and Nuclear Physics, Paris, 1990, pp. 573–580.
28. Edneral V.F., Khrustalev O.A., *Computer generation of normalizing transformation for systems of ODE*. Proceedings of International Seminar on Computer Algebra and its Applications in Mechanics (Novosibirsk –Irkutsk, August –September 1990), ed. by Rudenko V.M., Singapore, pp. 6–10.

29. Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Pukhov A.E., Savrin V.I., Jikia G., Shichanin S.A., Sultanov S., *γp project: gamma-proton, gamma-electron, gamma-gamma colliders physical programs and CompHEP computer system*. In: '91 Electroweak Interactions and Unified Theories. Proceed. of the 26th Recontre de Moriond, J. Tran Thann Van, Editions Frontieres, 1991, Singapore, pp. 501–522.
30. Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Kryukov A.P., Pukhov A.E., Savrin V.I., Shichanin S.A., *Problems of computer aided calculations for future colliders physical programs. Design and applications of CompHEP system*. In: Standard Model and Beyond: from LEP to UNK and LHC (Dubna, October 1990), Proceed. of the First International Triangle Workshop CERN - IHEP - JINR. World Scientific Publ., 1991, pp. 265–269.
31. Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Kryukov A.P., Pukhov A.E., Shichanin S.A., *Applications of CompHEP system to particle processes calculations*. Report INP MSU 91–9/213, Moscow, 1991, p. 36.
32. Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Pukhov A.E., Savrin V.I., Jikia G., Shichanin S.A., Sultanov S., *Physics on future gamma-proton and gamma-electron colliders at TeV energy scale and computer system CompHEP*. Report DESY 91 - 114, D-2000, Hamburg, 1991, p. 23.
33. Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Pukhov A.E., Savrin V.I., Jikia G., Shichanin S.A., Sultanov S., *The γp project of computer aided theoretical calculations for future gamma-proton, gamma-electron and gamma-gamma colliders physical programs*. Proceedings of the International Conference on Computing in High Energy Physics '91, Universal Academy Press, Inc. Tokyo, 1991, pp. 391–400.
 Boos E.E., Dubinin M.N., Edneral V.F., Ilyin V.A., Pukhov A.E., Savrin V.I., Jikia G., Shichanin S.A., Sultanov S., *The γp project of computer aided theoretical calculations for future gamma-proton, gamma-electron and gamma-gamma colliders physical programs*. Proceedings of the first All - Union Workshop on Physics at VLEPP, v.2, Moscow, 1991, pp. 108–132.
34. Edneral V.F., Khrustalev O.A., *Computer generation of normalizing transformation for ODE's systems*. In: Collection articles on Geometry, Topology and Differential Equations, ed. by Fedorchuck V.V. and Kovalev V.A. Moscow Institute for Instrument-making publ., Moscow, 1991, pp. 54–59. In Russian.

35. Edneral V.F., Ilyin V.A., *Fast Taylor expansion for Pochhammer's symbols*. In: Collection articles on Geometry, Topology and Differential Equations, ed. by Fedorchuk V.V. and Kovalev V.A. Moscow Institute for Instrument-making publishing, Moscow, 1991, pp. 74–77. In Russian.
36. Edneral V.F., Khrustalev O.A., *Package for recasting ODE systems in the normal form*. Sov. Journal of Programming, #5, Moscow, 1992, pp. 73 - 80. In Russian.
37. E.Boos, M.Dubinin, V.Edneral, V.Ilyin, A.Kryukov, A.Pukhov, S.Shichanin, *CompHEP - integrated system for calculations in high energy physics*, in: New Computing Techniques in Physics Research II. Proc. of International Workshop on Software Engineering, Artificial Intelligence and Expert Systems for High Energy and Nuclear Physics (AIHENP-92), World Scientific, Singapore, 1993, p. 665 - 670.
38. Edneral V.F. *Computer Generation of Normalizing Transformation for Systems of Nonlinear ODE*. Proceedings of the 1993 International Symposium on Symbolic and Algebraic Computation (Kiev, Ukraine, July 6-8, 1993). N.Y.,ACM Press, ISBN 0-89791-604-2, edited by M.Bronstein, 1993, pp. 14–19.
39. Edneral V.F. *Structure of Time Derivative of Formal Integral and Periodical Solutions of Henon – Heiles' System*. In Proceedings of Conf. "Theoretical, Applied and Computational Sky Mechanics", Inst. for Theoretical Astronomy publishing, S.Peterburgh, 1993, p. 20.
40. Dubinin M., Edneral V., Kurihara Y., Shimizu Y. *Complete tree level calculation of the process $e^+e^- \rightarrow \nu\bar{\nu}b\bar{b}$ and the Higgs signal LEP200 and Next Linear Colliders*. KEK CP - 008, KEK Preprint 93–138, 1993, p. 17.
Dubinin M., Edneral V., Kurihara Y., Shimizu Y. *Complete tree level calculation of the process $e^+e^- \rightarrow \nu\bar{\nu}b\bar{b}$ and the Higgs signal LEP200 and Next Linear Colliders*. Phys.Lett.B, v. B329, 1994, pp. 379–385.
41. Edneral V.F., Semenov A.V., *The Translation of Computer Programs from Environment Turbo PASCAL/DOS to C/UNIX*. Preprint INP MSU 93 - 26/318, Moscow, 1993, p. 15. In Russian.
42. Edneral V.F., Semenov A.V., *The Emulation of Graphic Library of BORLAND Turbo C/PASCAL at the Environment of OS UNIX*. Preprint INP MSU 93 - 27/319, Moscow, 1993, p. 19. In Russian.

43. Vassiliev N.N., Edneral V.F., *Computer Algebra in Physical and Mathematical Researches*. Sov. Journal of Programming, #1, Moscow, 1994, pp. 70–82. In Russian.
44. Edneral V.F. *Investigation of Formal Integral of Henon–Heiles’ System by Computer Algebra Method*. At the Proceedings of the RHINE Workshop, (Karlsruhe, March 21–24, 1994). pp. 213–215.
45. Edneral V.F. *Searching periodic solutions of Henon–Heiles’ system by computer algebra*. At the Proceedings of the XVII Congresso Nacional de Matemática Aplicada e Computacional - CNMAC 94 (Vitória - ES, Brazil, 29 August – 02 September, 1994). Volume 1, pp. 164–168.
46. E.Boos, M.Dubinin, V.Edneral, V.Ilyin, A.Pukhov, S.Shichanin, T.Kaneko, S.Kawabata, Y.Kurihara, Y.Shimizu, H.Tanaka, *Automatic calculations in high energy physics by GRACE/CHANEL and CompHEP*. Int.J.Mod.Phys., C5 (1994) 615-628
47. Edneral, V.F. (1995) *Complex Periodic Solutions of Autonomous ODE Systems with Analytical Right Sides Near an Equilibrium Point*; *Fundamentalnaya i prikladnaya matematika* (J. Fundamental and Applied Math.) **1**, #2. pp.393–398. In Russian.
48. Edneral V.F., *High Order Normal Form and Periodic Solutions of ODEs Systems*; The Proceedings of International Workshop ”New Computer Technologies in Control Systems” (Pereslavl-Zalessky, Russia, August 13–19, 1995). pp. 14–15.
49. Vassiliev N.N., Edneral V.F., (1995) *About Constructing Canonical Basis for the Ring of Formal Power Series*. In Proceedings of the Conference Computer Methods of Celestial Mechanics-95 (St. Petersburg, Russia, October 17–20, 1995), pp. 72–73. In Russian.
50. D. Bardin, R. Kleiss; E. Accomando, H. Anlauf, A. Ballestrero, F.A. Berends, E. Boos, F. Caravaglios, D. van Dierendonck, M. Dubinin, V. Edneral, F.C. Erne, J. Fujimoto, V. Ilyin, T. Ishikawa, S. Jadach, T. Kaneko, K. Kato, S. Kawabata, Y. Kurihara, D. Lehner, A. Leike, R. Miquel, G. Montagna, M. Moretti, T. Munehisa, O. Nicrosini, T. Ohl, A. Olchevski, G.J. van Oldenborgh, C.G. Papadopoulos, G. Passarino, D. Perret-Gallix, F. Piccinini, R. Pittau, W. Placzek, A. Pukhov, V. Savrin, M. Schmitt, S. Shichanin, Y. Shimizu, T. Sjostrand, M. Skrzypek, H. Tanaka, Z. Was, *Event Generators for WW Physics*, in: *Physics at LEP2*, ed. by G.Altarelli, T.Sjostrand, F.Zwirner, CERN report 96-01, vol. I, Geneva, 1996, p. 3-102 (hep-ph/9709270)

51. M.L. Mangano (convener), G. Ridolfi (convener), E. Accomando, S. Asai, H. Baer, A. Ballestrero, M. Besançon, E. Boos, C. Dionisi, M. Dubinin, L. Duflot, V. Edneral, K. Fujii, J. Fujimoto, S. Giagu, D. Gingrich, T. Ishikawa, P. Janot, M. Jimbo, T. Kaneko, K. Kato, S. Katsanevas, S. Kawabata, S. Komamiya, T. Kon, Y. Kurihara, A. Leike, G. Montagna, O. Nicrosini, F. Paige, G. Passarino, D. Perret-Gallix, F. Piccinini, R. Pittau, S. Protopopescu, A. Pukhov, T. Riemann, S. Shichanin, Y. Shimizu, A. Sopczak, H. Tanaka, X. Tata, T. Tsukamoto, *LEM Event Generators for Discovery Physics*, in: *Physics at LEP2*, ed. by G. Altarelli, T. Sjostrand, F. Zwirner, CERN report 96-01, vol. II, Geneva, 1996, p. 299-353 (hep-ph/9602203)
52. Vassiliev N.,N., Gerdt V.,P., Edneral V.,F., Shirkov D.,V., (1996) *Computer Algebra as Applied to Science and Engineering. J.* "Programming and Computer Software", Vol.22, N 6, 1996, pp. 296–306.
- Vassiliev N.,N., Gerdt V.,P., Edneral V.,F., Shirkov D.,V., (1996) *Computer Algebra in Application to Science and Engineering*. Preprint JINR P11-96-98, Dubna, 1996, p. 25. In Russian.
53. Edneral V.,F., (1996) *Symbolic Approximation of Periodic Solutions and Trajectories of Henon–Heiles’ System by the Normal Form Method*. Proceedings of XIth Workshop on High Energy Physics and Quantum Field Theory (St.-Petersburg, Russia, 1996), ed. by B.B. Levchenko, Moscow, 1997, pp.314–330.
- Edneral V.,F., (1996) *Symbolic Approximation of Periodic Solutions and Trajectories of Henon–Heiles’ System by the Normal Form Method*. Publication IT-96-289, Lille University for Sciences and Technologies, France. P. 26.
54. Edneral V.,F., (1996) *Some Computer Estimations of a Number of Small Limit Cycles in a Planar Cubic System*. Publication IT- 96-290, Lille University for Sciences and Technologies, France. P. 9.
55. Vassiliev N.N., Edneral V.F., (1996) *About an Algorithm to Construct a Canonical Basis for the Ideal in the Ring of Formal Power Series*. Proceedings/Actes of SNAP96 (Workshop on Symbolic-Numeric Algebra for Polynomials, 15-17 July, 1996, INRIA, France), p. 35.
56. Edneral V.F., (1996) *About Visualization of Periodic Trajectories of Non-linear ODE’s by the Normal Form Method*. In Proceedings of the Third International Workshop New Computer Technologies in Control Systems (July 29 – August 2, 1996, Pereslavl-Zalessky, Russia), p. 21.

57. P.A.Baikov, E.E.Boos, M.N.Dubinin, V.F.Edneral, V.A.Ilyin, D.V.Kovalenko, A.P.Kryukov, A.E.Pukhov, V.I.Savrin, A.V.Semenov, S.A.Shichanin, *Physical results by means of CompHEP*, in: Proc. of X Workshop on High Energy Physics and Quantum Field Theory, ed. by B.B.Levtchenko, V.I.Savrin, Moscow, 1996, p.101-116 (hep-ph/9701412)
58. Edneral V.F., (1997) *Computer evaluation of cyclicity in planar cubic system*; N.Y. ACM, Proceed. of the ISSAC'97 (Hawaii, USA, July 1997), ed. by W.Küchlin, 1997, pp.305–309
59. Edneral V.F., Vassiliev N.N., (1998) *About standard basis technique in the ring of formal power series*; International Conference "Computer Algebra in Scientific Computing (CASC'98, St.Petersburg, Russia, 1998)", pp.35–36
60. Pukhov A., Boos E., Dubinin M., Edneral V., Ilyin V., Kovalenko D., Kryukov A., Savrin V., Shichanin S., Semenov A., (1998) *CompHEP - a package for evaluation of Feynman diagrams and integration over multi-particle phase space*; Report INP MSU 98-41/542 (hep-ph/9908288)
61. Edneral V.F., (1998) *A symbolic approximation of periodic solutions of the Henon–Heiles system by the normal form method*; J.Mathematics and Computers in Simulation, Elsevier, v. 45, pp.445–463. Edited by A.Bruno, V.Edneral, S.Steinberg.
62. Edneral V.F., Vassiliev N.N., (1999) *Approach to solving equations in the ring of formal power series*. Proceedings of XIIth Workshop on High Energy Physics and Quantum Field Theory (Samara, Russia, 1997), ed. by B.B.Levtchenko, Moscow, 1999, pp.462–465.
63. Edneral V.F., (1999) *About Normal Form Method*; Proceed. of the Second Workshop on Computer Algebra in Scientific Computing (CASC'99, Munich, Germany, 1999), ed.by Ganzha et al., Springer, pp. 51–66.
64. Edneral V.F., (2001) *Bifurcation Analysis of Low Resonant Case of the Generalized Henon - Heiles System*; Proceed. of the Fourth Workshop on Computer Algebra in Scientific Computing (CASC 2001, Konstanz, Germany, 2001), ed.by Ganzha et al., Springer, pp. 167–176.
65. Edneral V.F., (2002) *On Families of Periodic Solutions of Low Resonant Case of the Generalized Henon - Heiles System*; Proceed. of the International Workshop on Computer Algebra and its Application to Physics (CAAP-2001, Dubna, 2001), ed.by V.P.Gerdt, Dubna, 2002, pp. 43–51.

66. Edneral V.F., Khanin R., (2002) *Multivariate Power Series and Normal Form Calculation in Mathematica*; Proceed. of the Fifth Workshop on Computer Algebra in Scientific Computing (CASC 2002, Big Yalta, Ukraine , September, 2002), ed.by Ganzha et al., Tech.Univ.München, Munich, 2002, pp. 63–70.
67. Edneral V.F., Khanin R., (2003) *Application of the resonant normal form to high order nonlinear ODEs using MATHEMATICA*; Nuclear Inst. and Methods in Physics Research, A, **502**/2-3, pp. 643 – 645.
68. Edneral V.F., (2003) *Periodic Solutions of a Cubic ODE System*; Proceed. of the Fifth Workshop on Computer Algebra in Scientific Computing (CASC 2003, Passau, Germany, September 20-26, 2003), ed.by Ganzha et al., Tech.Univ.München, Munich, 2003, pp. 77–80.
69. Abramov S.A., Edneral V.F., Rostovtsev V.A., The Research Seminar on Computer Algebra in 2002-2003. Programming and Computer Software, **30**, No. 2 (2004), pp. 3–7.
70. Edneral V.F., Khanin R., (2004) *Investigation of the Double Pendulum System by the Normal Form Method in MATHEMATICA*; Programming and Computer Software, **30**, #2, pp. 115 – 117. Translated from Programirovanie **30**, #2.
71. Boos, E, et al. [CompHEP Collaboration], (2004) *CompHEP 4.4: Automatic computations from Lagrangians to events*, Nucl. Instrum. Meth.**A534** (2004), p. 250 [hep-ph/0403113]
72. Abramov S.A., Bogolyubskaya A.A., Rostovtsev V.A., Edneral V.F., *The Research Seminar on Computer Algebra in 2003-2004*. Programming and Computer Software, **31**, No. 2 (2005), pp. 51–55.
73. Bruno, A.D., Edneral, V.F. *Normal Forms and Integrability of ODE Systems*. Proceedings of 8th International Workshop on Computer Algebra in Scientific Computing (CASC 2005, September 12-16, Kalamata, Greece, 2005), ed. by Ganzha et al., Springer, LNCS 3718 (2005) pp. 65 - 74.
74. Edneral, V.F. (2005) *Looking for Periodic Solutions of ODE Systems by the Normal Form Method*. In the book: Differential Equations with Symbolic Computation, ed. by Dongming Wang, Zhiming Zheng, Birkhauser Verlag (2005), pp. 173–200.

75. Bruno A.D., Edneral V.F. (2006) *Normal Forms and Integrability of ODE Systems*. Programming and Computer Software **32**, No. 3 (2006) pp.139-144.
76. Abramov S.A., Bogolyubskaya A.A., Rostovtsev V.A., Edneral V.F., (2006) *The Research Seminar on Computer Algebra in 2004-2005*. Programming and Computer Software **32**, No. 2 (2006) pp. 61–64.
77. Bruno, A.D., Edneral, V.F. (2006) *On Integrability of the Euler-Poisson Equations*. Proceedings of Global Integrability of Field Theories 2006 (GIFT 2006, November 1-3, 2006, Cockcroft Institute, Daresbury, UK), ed. by J.Calmet et al., Universitatsverlag Karlsruhe (2006) pp. 39–56.
78. Bruno A. D., Edneral V. F. *Computation of Normal Forms of the Euler-Poisson Equations*. Preprint No. 1 of the Keldysh Institute of Applied Mathematics of RAS. Moscow, 2007, 17 p. In Russian.
79. Bruno, A.D., Edneral, V.F. (2007) *On integrability of the Euler-Poisson equations*. Fundamental and Applied Mathematics **13**, No. 1 (2007) pp. 45–59.
80. Abramov S.A., Bogolyubskaya A.A., Rostovtsev V.A., Edneral V.F., (2007) *The Research Seminar on Computer Algebra in 2005-2006*. Programming and Computer Software, **33**, No. 2 (2007) pp. 55–59.
81. Edneral V.F. , *On algorithm of the normal form building*. Proceed. of the 10th International Workshop on Computer Algebra in Scientific Computing (CASC 2007, September 16-20, 2007. Bonn, Germany), ed. by Ganzha et al., Springer-Verlag series: Lecture Notes in Computer Science, LNCS 4770, 2007, 134142.
82. S.A. Abramov, A.A. Bogolyubskaya, V.A. Rostovtsev, V.F. Edneral, *The Research Seminar on Computer Algebra in 20062007*. Programming and Computer Software, **34**, No. 2 (2008), pp. 5963. Pleiades Publishing, Inc., 2008.
83. A. Berezhnoy, V.Edneral, V.Ilyin, A.Kryukov, G.Shpiz, L.Shamardin, *Interface between EGEE/LCG GRID and Supercomputers SKIF series*. Preprint SINP MSU No. 2008-8/844 (2008). p. 6. (in Russian).
84. V.Edneral, V.Ilyin, A.Kryukov, G.Shpiz, L.Shamardin. *Implementation of job submission interface from EGEE/WLCG GRID infrastructure to SKIF series supercomputers*. Proceedings of Conference GRID 2008 (Dubna, June 30 - July 4, 2008), pp. 179 181.

85. S.A. Abramov, A.A. Bogolyubskaya, V.A. Rostovtsev, V.F. Edneral, *The Research Seminar on Computer Algebra in 2007/2008*. Programming and Computer Software, **35**, No. 2 (2009), pp. 5762. Pleiades Publishing, Inc., 2009.
86. A. D. Bruno and V. F. Edneral, *Algorithmic Analysis of Local Integrability*, Doklady Mathematical Sciences, **79**, 1 (2009), pp. 1 – 5.
87. Alexander Bruno and Victor Edneral, *Integrability Analysis of Polynomial ODE Systems*. Proceed. of International Conference on Polynomial Computer Algebra 2009 (PCA 2009, April 7-12, St. Petersburg Russia), ed. by N.N.Vassiliev, VVM Publishing Ltd., 2009, pp. 114 – 119.