

CURRICULUM VITAE

I. PERSONAL DETAILS

Name	Theodore
Surname	Monovasilis
Father's Name	Nicholas
Mother's Name	Ioanna
Date of Birth	13/02/1969
Place of Birth	Kastoria
Tel.	
e-mail	tmonovasilis@uowm.gr

II. DEGREES

- Bsc degree in Mathematics, Department of Mathematics, University of Ioannina, (1992).
- Phd in Numerical Analysis, Department of Computer Science and Technology, Faculty of Sciences and Technology, University of Peloponnese, Supervisor: Prof. Simos Theodoros (2006)

III.1 TEACHING EXPERIENCE IN UNDERGRADUATE

Department of International Trade

1996 – 2019:

Courses: Mathematics for finance, Mathematics for economics, Business Statistics, Operational research, Advanced Mathematics.

Department of Public Relation and Communication

1999-2003 and 2011-2020:

Course: Quantitative Methods

Department of Economics

2019 – Today:

Courses: Mathematics for economics, Business Statistics, Advanced Mathematics.

III.2 TEACHING EXPERIENCE IN POSTGRADUATE

Master of Business Administrator

2008 – 2018:

Applied Business Statistics, Quantitative Methods in Business and Logistics.

Master of public relations and marketing with new technologies

2012 – 2019

Courses: Research methods in public relations and marketing and Models of Consumer.

Master of Science (MSc) in “Modern Information Technologies and Services”.

2015 - Today:

Courses: «Computational Methods», «Statistical Methods in Education».

Energy investments and environment

2020 – Today:

Courses: «Quantitative Methods in Energy»

IV.1 SCIENTIFIC ACTIVITY

- Editor of the journal: ‘Mathematical Methods in the Applied Sciences’ , Wiley publications, (Impact Factor 0,84) ([http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1099-1476/homepage/EditorialBoard.html](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1476/homepage/EditorialBoard.html))
- Member of the editorial board of the journal ‘Numerical Analysis and Applicable Mathematics’, Ariviyal Publishing. (ariviyalpublishing.com/mathematical/editorial-board.php).
- Referee on the international journal *Applied Mathematics and Computation* (Elsevier)
- Referee on the international journal: *Journal of Applied Mathematics* (Hindawi)
- Guest editor in special issue in journal *International Journal of Computational Economics and Econometrics*

- Guest editor in special issue in journal *International Journal of financial Economics and Econometrics*
- Co-editor at the proceedings of the *International Conference on Applied Mathematics (ICOAE 2008 and 2009)*
- Referee on *International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2009-2010-2011-2012-2013)*
- Referee on *International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2009)*
- Member of scientific committee of *International Conference on Applied Mathematics (ICOAE 2009)*
- Member of organizing committee of *International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2003, 2004, 2005, 2006, 2007, 2008, 2009)*
- Member of organizing committee of *International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2004)*

IV2 . Research Projects

01/02/2012 – 31/01/2015: Archimedes III' project titled 'Numerical Integration of Differential Equations-NIDE'.

03/10/2007 – 31/12/2008: Interreg III: «Ανάπτυξη συστήματος ασύγχρονης τηλεεκπαίδευσης και πιλοτικού προγράμματος εξ αποστάσεως εκπαίδευσης μεταξύ του TEI Δυτικής Μακεδονίας - Παράρτημα Καστοριάς (Ελλάδα) του Πανεπιστημίου Κορυτσάς (Αλβανία) ».

01/09/2004 – 31/08/2005: Regional Competitiveness, Innovation and Regional Policy (ARCHIMEDES II: TEI of Western Macedonia) funded by the Greek Ministry of Education

01/06/2005 – 31/08/2006: Numerical and Computational methods in Science and Technology (ARCHIMEDES II: TEI of Chalkis) funded by the Greek Ministry of Education

01/09/2002 – 30/06/2005: Software Package for the numerical solution of Differential Equations funded by the Prefecture of Western Macedonia.

V. ACADEMIC ADMINISTRATION

01/09/08 – 30/09/09: Head of Department of International Trade

01/09/10 – 31/08/13: Vice Head of Department of International Trade

01/09/13 – 31/08/19: Head of Department of International Trade

01/09/19 – Today: Head of Department of Economics

VI. RESEARCH INTERESTS:

Numerical Analysis, Numerical Solution of Differential Equations

VII. PRIZES

The paper c4 owned the prize “Best Student’s Paper Prize of ICCMSE 2004 on Computational Mathematics”.

VIII. RESEARCH ACTIVITIES

Research papers:

(in international refereed journals)

- p1. Z. Kalogiratou, Th. Monovasilis, and T.E. Simos, Symplectic integrators for the numerical solution of the Schrödinger equation, *Journal of Computational and Applied Mathematics*, 158 (2003) 83-92. [Impact Factor: 0.567]
- p2. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Numerical Solution of the two-dimensional time- independent Schrödinger Equation by Symplectic Schemes, *Applied Numerical Analysis and Computational Mathematics (ANACM)*, 1 (2004) 195-204. [abstracted in basis Zentralblatt Math]
- p3. Z. Kalogiratou, Th. Monovasilis, and T.E. Simos, Numerical solution of the Two-Dimensional time-independent Schrödinger equation with exponential-fitting methods, *Journal of Mathematical Chemistry* 37(2005) 271-279. [Impact Factor: 1.495]
- p4. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Exponential- fitting symplectic methods for the numerical integration of the Schrödinger equation, *Journal of Mathematical Chemistry* 37(2005) 263-270. [Impact Factor: 1.495]
- p5. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Trigonometrically and Exponentially fitted Symplectic Methods of third order for the numerical integration of the Schrödinger equation, *Applied Numerical Analysis and Computational Mathematics (ANACM)*, 2 (2005) 238-244. [abstracted in basis Zentralblatt Math]

- p6. Th. Monovasilis and T.E. Simos, Numerical Solution of the two-dimensional time-independent Schrödinger Equation by third order symplectic schemes, *Journal of Chemical Physics*, 313 (2005) 293-298. [Impact Factor: 2.316]
- p7. Z. Kalogiratou, Th. Monovasilis, and T.E. Simos, A Symplectic Trigonometrically Fitted Modified Partitioned Runge-Kutta Method for the Numerical Integration of Orbital Problems. *Applied Numerical Analysis and Computational Mathematics (ANACM)*, 2 (2005) 359-364. [abstracted in basis Zentralblatt Math]
- p8. Z. Kalogiratou, Th. Monovasilis, and T.E. Simos, Computation of the eigenvalues of the one-dimensional Schrödinger equation by symplectic methods, *International Journal of Quantum Chemistry*, 106 (2006) 795-802. [Impact Factor: 1.182]
- p9. Th. Monovasilis, and T.E. Simos, Symplectic and Trigonometrically fitted Symplectic methods of second and third order, *Physics Letters A*, 354 (2006) 377-383. [Impact Factor: 1.468]
- p10. Th. Monovasilis, and T.E. Simos, Symplectic methods for the numerical integration of the Schrödinger equation, *Computational Materials Science*, 38 (2007) 526-532. [Impact Factor: 1.494]
- p11. Th. Monovasilis, and T.E. Simos, New Second-Order Exponentially and Trigonometrically Fitted Symplectic Integrators for the Numerical Solution of the Time-independent Schrödinger Equation, *Journal of Mathematical Chemistry*, 42 (2007) 535-545. [Impact Factor: 1.245]
- p12. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Trigonometrically fitted and exponentially fitted symplectic methods for the numerical integration of the Schrödinger equation *Journal of Mathematical Chemistry*, 40 (2006) 257-267. [Impact Factor: 1.245]
- p13. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Families of Third and Fourth Algebraic Order Trigonometrically Fitted Symplectic Methods for the Numerical Integration of Hamiltonian Systems, *Computer Physics Communications*, 177 (2007) 757-763. [Impact Factor: 1.644]
- p14. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Computation of the eigenvalues of the Schrödinger equation by symplectic and trigonometrically fitted symplectic partitioned Runge-Kutta methods, *Physics Letters A*, 372 (2008) 569-573 [Impact Factor: 1.550]
- p15. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, A family of trigonometrically fitted partitioned Runge-Kutta symplectic methods , *Applied Mathematics and Computation*, 209 (2009) 91-96. [Impact Factor: 1.124]
- p16. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Computation of the eigenvalues of the Schrödinger equation by exponentially-fitted Runge-Kutta-Nyström methods, *Computer Physics Communications*, 180 (2009) 167-176. [Impact Factor: 1.958]

- p17. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Symplectic Partitioned Runge–Kutta methods with minimal phase-lag, *Computer Physics Communications*, 181 (2009) 1251-1254. [Impact Factor: 1.958]
- p18. Z. Kalogiratou, Th. Monovasilis and T.E. Simos Modified Runge-Kutta-Nystrom Methods for the Numerical Integration of Schrodinger Equation, *Computers and Mathematics with Applications*. 60 (2010) 1639-1647 [Impact Factor: 1.192]
- p19. Th. Monovasilis Z. Kalogiratou and T.E. Simos, Two new phase-fitted symplectic partitioned Runge Kutta methods, *International Journal of Modern Physics C*, 22, 12, (2011) 1343-1355. [Impact Factor: 0.706]
- p20. Th. Monovasilis, Symplectic Partitioned Runge-Kutta methods with the phase-lag property, *Applied Mathematics and Computation*, 218 (2012) 9075-9084. [Impact Factor: 1.029]
- p21. Th. Monovasilis, Phase fitted Symplectic Partitioned Runge-Kutta methods for the numerical integration of the Schrodinger equation, *Journal of Mathematical Chemistry*, 50 (2012) 1736–1746, [Impact Factor: 1.259]
- p22. Th. Monovasilis Z. Kalogiratou and T.E. Simos, Exponentially Fitted Symplectic Runge-Kutta-Nystrom methods, *Applied Mathematics & Information Sciences*, AMIS 7, (2013) 81-85,, [Impact Factor: 0.508]
- p23. Z. Kalogiratou, Th. Monovasilis, G. Psihoyios, T.E. Simos, Runge–Kutta type methods with special properties for the numerical integration of ordinary differential equations, *Physics Reports*, In Press, (2013) , [Impact Factor: 22.929]
- p24. Z. Kalogiratou, Th. Monovasilis, Diagonally Implicit Symplectic Runge-Kutta methods with special properties, *Applied Mathematics & Information Sciences*, AMIS Accepted, [Impact Factor: 0.508]
- p25. Z. Kalogiratou, Th. Monovasilis, T.E. Simos, A fourth order modified trigonometrically fitted symplectic Runge–Kutta–Nyström method, *Computer Physics Communications*, 185 (2014) 3151-3155, [Impact Factor: 2.407]
- p26. Th. Monovasilis Z. Kalogiratou and T.E. Simos, Construction of exponentially fitted symplectic Runge-Kutta-Nystrom methods from Partitioned Runge-Kutta methods, *Applied Mathematics & Information Sciences*, AMIS, 9, No 4, (2015) 1923-1930, [Impact Factor: 1.232]
- p27. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, Symplectic Runge-Kutta-Nystrom Methods with phase-lag order 8 and infinity, *Applied Mathematics & Information Sciences*, AMIS, 9, No 3, (2015) 1105-1112. [Impact Factor: 1.232]
- p28. Th. Monovasilis Z. Kalogiratou and T.E. Simos, Construction of Exponentially Fitted Symplectic Runge–Kutta–Nyström Methods from Partitioned Runge–Kutta Methods, *Mediterranean Journal of Mathematics*, 13 (2015) 2271-2285. [Impact Factor: 0.656]

- p29. Higinio Ramos, ·Z. Kalogiratou, · Th. Monovasilis, ·T. E. Simos, An optimized two-step hybrid block method for solving general second order initial-value problems, *Numerical Algorithm*, 72 (2016) 1089-1102. [Impact Factor: 1.241]
- p30. Z. Kalogiratou, Th. Monovasilis, Higinio Ramos, T. E. Simos, A new approach on the construction of trigonometrically fitted two step hybrid methods, *Journal of Computational and Applied Mathematics*, 303 (2016) 146-155. [Impact Factor: 1.357]
- p31. Th. Monovasilis, Z. Kalogiratou, Higinio Ramos, T. E. Simos, Modified two-step hybrid methods for the numerical integration of oscillatory problems, *Mathematical Methods in the Applied Sciences*, 40 (2017) 5286–5294. [Impact Factor: 1.017]
- p32. Th. Monovasilis, ·Z. Kalogiratou, ·T. E. Simos, Trigonometrical fitting conditions for two derivative Runge-Kutta methods, *Numerical Algorithm*, 2018, 79(3), pp. 787-800. [Impact Factor: 1.241]
- p33. Z. Kalogiratou, Th. Monovasilis, T. E. Simos, New fifth order Two-Derivative Runge-Kutta methods with constant and frequency dependent coefficients, *Mathematical Methods in the Applied Sciences*, 42(6), (2019), 1955-1966 [Impact Factor: 1.18].
- p34. Kalogiratou, Z., Monovasilis, T., Simos, T.E., Two-derivative Runge-Kutta methods with optimal phase properties, *Mathematical Methods in the Applied Sciences*, 2020, 43(3), pp. 1267-1277
- p35. Y. Bassiakos, Z. Kalogiratou, Th. Monovasilis, N. Tsounis, Computational method for approximating the behaviour of a triopoly: an application to the mobile telecommunications sector in Greece, *Int. J. Computational Economics and Econometrics*, Vol. 11, No. 1, 2021
- p36. Th. Monovasilis and Z. Kalogiratou, High Order Two-Derivative Runge-Kutta Methods with Optimized Dispersion and Dissipation Error, *Mathematics* 2021, 9, 232.

(Proceedings of international conferences)

- c1. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, Asymptotically Symplectic Integrators of 3rd and 4th order for the numerical solution of the Schrödinger equation, *Proceedings of the second MIT conference on Computational Fluid and Solid Mechanics*, 2002, Elsevier Science. Vol 2, pp. 2012-2015.
- c2. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, Numerical Solution of the two-dimensional time-independent Schrödinger Equation with exponential-fitting

- methods, *Proceedings of the International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2003)*, pp. 262 – 267, World Scientific Kastoria 12-16/09/2003. [abstracted in basis Zentralblatt Math]
- c3. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, Construction of asymptotically symplectic methods for the numerical solution of the Schrödinger equation, *Proceedings of the International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2004)*, pp.248-252, VSP. Vouliagmeni–Athens 19-23/11/2004.
- c4. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Fourth order trigonometrically-fitted and exponentially-fitted symplectic methods for the numerical integration of the Schrödinger equation, *Proceedings of the International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2004)*, pp 391-395, VSP. Vouliagmeni–Greece 19-23/11/2004.
- c5. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, Symplectic and Exponentially-fitted Symplectic Methods of Second and Third order, *Proceedings of International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2005)* pp. 295-297 ,WILEY-VCH. Rhodes- Greece 16-20/09/2005. [abstracted in basis Zentralblatt Math]
- c6. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Symplectic and Exponentially-fitted Symplectic Methods for the Numerical Integration of Orbital Problems, *Proceedings of International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2005)* pp. 378-381,WILEY-VCH. Rhodes- Greece 16-20/09/2005. [abstracted in basis Zentralblatt Math]
- c7. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, Numerical solution of the two-dimensional time independent Schrödinger Equation by symplectic schemes based on Magnus Expansion, *Advances in Computational Methods in Sciences and Engineering 2005 (ICCMSE 2005)*, pp. 270-274, VSP. Loutraki-Greece 21-26/10/2005.
- c8. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Application of Symplectic Partitioned Runge-Kutta Methods to Hamiltonian Problems, *Advances in Computational Methods in Sciences and Engineering 2005 (ICCMSE 2005)*, pp. 417- 420, VSP. Loutraki-Greece 21-26/10/2005.
- c9. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Trigonometrically Fitted Symplectic Methods for the Numerical Integration of Hamiltonian Systems, *Proceedings of International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2006)* pp. 236-238,WILEY-VCH. Hersonissos-Greece 15-19/09/2006. [abstracted in basis Zentralblatt Math].
- c10. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, Computation of the eigenvalues of the Schrödinger Equation by Exponentially-Fitted Runge-Kutta-Nyström Methods, *Proceedings of International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2007)*. pp.372-377, American Institute of Physics Corfu-Greece 16-20/09/2007.
- c11. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, A Fifth-order Symplectic Trigonometrically Fitted Partitioned Runge-Kutta Method, *Proceedings of*

International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2007). pp. 313-317, American Institute of Physics Corfu-Greece 16-20/09/2007.

- c12. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, An Exponentially fitted 6(4) pair of explicit Runge-Kutta-Nyström Methods, *Proceedings of the International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2007)* pp. 963 (2007) 1253
- c13. Th. Monovasilis, Z. Kalogiratou and T.E. Simos, A Family of Trigonometrically-fitted Partitioned Runge-Kutta Symplectic Methods, *Proceedings of the International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2007)* pp. 963 (2007) 1253
- c14. Kalogiratou S., Kalogiratou Z., Loulaki N., Melliou V., Monovasilis Th., Themelis Th., Mathematical models of competing species an analytical and numerical approach, *Proceedings of the International Conference on Applied Economics (ICOAE 2008)* pp. 449-454.
- c15. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, Exponentially-Fitted Runge-Kutta-Nyström Methods for the Solution of the Schrödinger Equation, pp. 1040-1044, AIP Conference Proceedings Volume 1048 *International Conference on Numerical Analysis and Applied Mathematics 2008*, Psalidi, Kos (Greece), (ICNAAM 2008)
- c16. Z. Kalogiratou, Th. Monovasilis, and T. E. Simos, Conditions for Trigonometrically Fitted Runge-Kutta Methods, AIP Conf. Proc. 1168 (2009) 1600
- c17. Th. Monovasilis, Z. Kalogiratou, and T. E. Simos, A Phase-fitted Symplectic Partitioned Runge-Kutta Methods for the Numerical Solution of the Schrödinger Equation, AIP Conf. Proc. 1168 (2009) 1595-1599.
- c18. Z. Kalogiratou, Th. Monovasilis, and T. E. Simos, Symplectic Runge Kutta Nystrom methods with phase lag order six and infinity, AIP Conf. Proc. 1281 (2010) 694 - 697.
- c19. Th. Monovasilis, Z. Kalogiratou, and T. E. Simos, Symplectic partitioned Runge Kutta methods with minimum phase lag – Case of 5 stages, AIP Conf. Proc. 1281 (2010) 698 - 702.
- c20. Z. Kalogiratou, Th. Monovasilis, and T. E. Simos, A Diagonally Implicit Symplectic Runge-Kutta Method with Minimum Phase-lag, AIP Conf. Proc. 1389 (2011) 1977 - 1979.
- c21. Th. Monovasilis, Z. Kalogiratou, and T. E. Simos, A Trigonometrically Fitted Symplectic Runge-Kutta-Nystrom Method, AIP Conf. Proc. 1389 (2011) 1980 - 1983.
- c22. Z. Kalogiratou, Th. Monovasilis, and N. Tsounis, Modeling Regional Employment. An Application in High Technology Sectors in Greece, *Procedia Economics and Finance*, 1, 2012, Pages 213–218.

- c23. Z. Kalogiratou, Th. Monovasilis, and T. E. Simos, Diagonally Implicit Symplectic Runge-Kutta Method with special properties, AIP Conf. Proc. 1479, 1377 (2012).
- c24. Th. Monovasilis, Z. Kalogiratou, and T. E. Simos, Exponentially fitted Symplectic Runge-Kutta-Nystrom Method, AIP Conf. Proc. 1479, 1395 (2012).
- c25. Z. Kalogiratou, Th. Monovasilis, S. Moustakli, N. Tsounis, Modeling the Mobile Telecommunications Sector in Greece, Procedia Economics and Finance, 5, 2013, Pages 377–385.
- c26. Z. Kalogiratou, Th. Monovasilis, and T. E. Simos, A Trigonometrically Fitted Modified Symplectic Runge-Kutta-Nystrom Methods of Order Four, AIP Conf. Proc. 1558, 1176 (2013)
- c27. Th. Monovasilis, Z. Kalogiratou, and T. E. Simos, Exponentially Fitted Symplectic Runge Kutta Nystrom Methods Derived by Partitioned Runge Kutta methods. ,AIP Conf. Proc. 1558, 1181 (2013)
- c28. Z. Kalogiratou, Th. Monovasilis, and T. E. Simos, A Sixth Order Symmetric and Symplectic Diagonally Implicit Runge-Kutta Method, AIP Conf. Proc. 1618, 833 (2014)
- c29. Th. Monovasilis, Z. Kalogiratou, and T. E. Simos, Construction of exponentially fitted symplectic Runge-Kutta-Nyström methods from partitioned Runge-Kutta methods, AIP Conf. Proc. 1618, 843 (2014).
- c30. Z. Kalogiratou, Th. Monovasilis, Higinio Ramos and T.E. Simos, Trigonometrically Fitted Two Step Hybrid Methods for the Numerical Solution of the Schrödinger Equation, AIP Conference Proceedings 1648, 810008 (2015); doi: 10.1063/1.4913017
- c31. Th. Monovasilis, Z. Kalogiratou, Higinio Ramos and T.E.Simos, A New Approach on the Construction of Trigonometrically Fitted Two Step Hybrid methods, AIP Conference Proceedings 1648, 810009 (2015); doi: 10.1063/1.4913018.
- c32. Higinio Ramos, Z. Kalogiratou, Th. Monovasilis and T.E. Simos, An Optimized Two-step Hybrid Block Method for Solving General Second Order Initial-value Problems of the form $y'' = f(x, y, y')$, AIP Conference Proceedings 1648, 810006 (2015); doi: 10.1063/1.4913015.
- c33. Higinio Ramos, Z. Kalogiratou, Th. Monovasilis and T.E. Simos, A trigonometrically fitted optimized two-step hybrid block method for solving initialvalue problems of the form $y'' = f(x, y, y')$ with oscillatory solutions, AIP Conference Proceedings 1648, 810007 (2015); doi: 10.1063/1.4913016.

- c34. Z. Kalogiratou, Th. Monovasilis, T.E. Simos, Two Step Hybrid methods of 7th and 8th order for the numerical solution of the numerical integration of second order IVPs, AIP Conf. Proc. 1738, 480132-1–480132-6; doi: 10.1063/1.4952368
- c35. Th. Monovasilis, Z. Kalogiratou, and T. E. Simos, Trigonometrically Fitted Two Step Hybrid methods for the numerical solution of the numerical integration of second order IVPs, AIP Conf. Proc. 1738, 480133-1–480133-5; doi: 10.1063/1.4952369.
- c36. M. Chatzopoulou, A. Vlachvei, Th. Monovasilis, Employee's Motivation and Satisfaction in Light of Economic Recession: Evidence of Grevena Prefecture Greece, Procedia Economics and Finance ICOAE 2015, 24, (2015), 136–145.
- c37. L. Petrakis, Z. Kalogiratou, Th. Monovasilis, T.E.Simos, "Numerical Integration of Chaplain and Stuart Model", AIP Conf. Proc. 1738, 480131-1–480131-3; doi: 10.1063/1.4952367
- c38. A. Michalas, Z. Kalogiratou, Th. Monovasilis, T.E.Simos, "Numerical Integration of Maxwell equations with symplectic integrators", AIP Conf. Proc. 1738, 480130-1–480130-4; doi: 10.1063/1.4952366
- c39. Z. Kalogiratou, Th. Monovasilis, T.E. Simos, "A class of explicit two derivative Runge Kutta methods", ICNAAM 19-25 September 2016 - Rhodes Greece, 2016
- c40. Z. Kalogiratou, Th. Monovasilis, T.E. Simos, "Trigonometrically Fitted Two Derivative Runge – Kutta Methods.", ICCMSE 17-20 March 2016 - Athens Greece, 2016
- c41. Th. Monovasilis, Z. Kalogiratou and T.E.Simos, "Modified Two Step Hybrid Methods for Oscillatory Problems.", ICCMSE 17-20 March 2016 - Athens Greece, 2016
- c42. Z. Kalogiratou, Th. Monovasilis, T.E. Simos, Construction of Two Derivative Runge Kutta Methods of Order Five, AIP Conf. Proc. 1863, 560092-1–560092-6; doi: 10.1063/1.4992775.
- c43. Th. Monovasilis Z. Kalogiratou and T.E. Simos, "Trigonometrically Fitted Two Derivative Runge Kutta Methods with Three Stages", AIP Conf. Proc. 1863, 560093-1–560093-4; doi: 10.1063/1.4992776
- c44. Th. Monovasilis, Z. Kalogiratou, T.E. Simos, "Modified Two Derivative Runge Kutta Methods for Solving Oscillatory Problems.", AIP Conf. Proc. 1863, 560093-1–560093-4; doi: 10.1063/1.4992776
- c45. Monovasilis Th., Kalogiratou, Z., Simos, T.E., "Order conditions for two derivative Runge Kutta methods up to order six, AIP Conference Proceedings 1906, 200020 (2017)

- c46. Z. Kalogiratou, Th. Monovasilis and T.E. Simos, Two Derivative Runge-Kutta methods with minimum phase-lag and amplification error, ICNAAM 25-30 September 2017, Thessaloniki Greece, AIP Conference Proceedings 1978,470108
- c47. Th. Monovasilis, Z. Kalogiratou and T.E.Simos, Phase Fitted and Amplification Fitted Two Derivative Runge-Kutta methods, ICNAAM 25-30 September 2017, Thessaloniki Greece, 2017, 2018, AIP Conference Proceedings 1978,470109
- c48. A. Vlachvei, A. Kyparisis, Th. Monovasilis, Food related behavior of travelers: the case of Thessaloniki, TOURMAN 2018, 25-28 October 2018, Rhodes Greece.
- c49. Monovasilis Th., Kalogiratou Z., Simos, T.E. Comparison of two derivative Runge Kutta methods, 2018, AIP Conference Proceedings, 2040,150019
- c50. Kalogiratou, Z., Monovasilis, Th., Simos, T.E. Trigonometrically fitted two derivative Runge Kutta methods for the Schrödinger equation, 2018, AIP Conference Proceedings 2040,150020
- c51. Th. Monovasilis, Z. Kalogiratou, N. Tsounis, G. Bertsatos, S. Moustakli, Use of Differential Equations in Firms Behavior in an Oligopoly Market, International Conference on Applied Economics ICOAE 2019: Advances in Cross-Section Data Methods in Applied Economic Research pp 627-634
- c52. Z. Kalogiratou, Th. Monovasilis, N. Tsounis, G. Bertsatos, S. Moustakli, Mathematical Modeling of the Brewery Sector in Greece with the Use of Differential Equations, International Conference on Applied Economics ICOAE 2019: Advances in Cross-Section Data Methods in Applied Economic Research pp 651-659
- c53. Th. Monovasilis, Z. Kalogiratou, N. Tsounis, G. Bertsatos and S. Moustakli, Use of Differential Equations in Firms Behavior in an Oligopoly Market (2020) Springer Proceedings in Business and Economics, pp. 627-634.
- c54. Z. Kalogiratou, Th. Monovasilis, N. Tsounis, G. Bertsatos and S. Moustakli, Mathematical Modeling of the Brewery Sector in Greece with the Use of Differential Equations (2020) Springer Proceedings in Business and Economics, pp. 651-659.
- c55. Gerassimos Bertsatos, Soutana Moustakli, Zacharoula Kalogiratou, Theodoros Monovasilis, An application of Differential Equations on Anthropogenic Climate Change (2021) Springer Proceedings in Business and Economics, pp. 527-534.

Chapters in research books

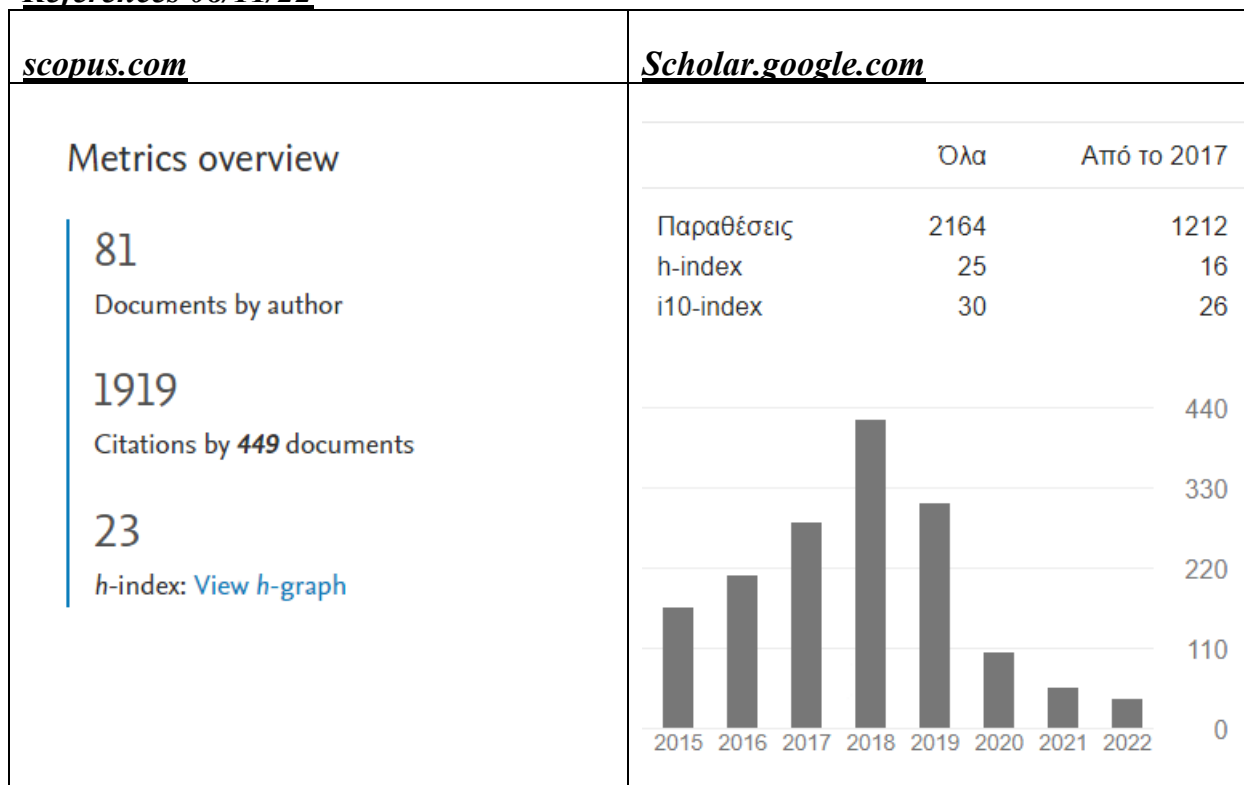
1. Z. Kalogiratou, Th. Monovasilis and T. E. Simos, Symplectic Partitioned Runge-Kutta Methods for the Numerical Integration of Periodic and Oscillatory

Problems, (2011), Recent Advances in Computational and Applied Mathematics, Pages 169-208, Springer, ISBN 978-90-481-9980-8

IX. MONOGRAPHS

1. Καλογηράτου Ζ., Μονοβασίλης Θ., Σίμος Θ., *Αριθμητική Επίλυση Διαφορικών Εξισώσεων* ISBN 960-630-720-4, Καστοριά (2005).

References 08/11/22



X. BOOKS

Ζ. Καλογηράτου, Θ. Μονοβασίλης, Οικονομικά Μαθηματικά, ISBN: 978-960-93-3174-6.

Γ. ΒΑΣΙΛΕΙΑΔΗΣ, Ζ. ΚΑΛΟΓΗΡΑΤΟΥ, Θ. ΜΟΝΟΒΑΣΙΛΗΣ, ΕΙΣΑΓΩΓΗ ΣΤΗ ΣΤΑΤΙΣΤΙΚΗ, ISBN: 978-960-93-4154-7

XI. MEMBERSHIP OF ACADEMIC ORGANIZATIONS

Member of “European Society of Computational Methods in Sciences and Engineering” (ESCMSE)

Member of Hellenic Mathematical Society (EME).