

- R.1) Hubaux C., Libert A.-S. & Carletti T.: 2010, "*On the use of the MEGNO indicator with the Global Symplectic Integrator*", nlin.CD/1011.6207.
- R.2) Antonopoulos Ch., Bountis T. C. & Basios V.: 2011, "*Quasi-stationary chaotic states in multi-dimensional Hamiltonian systems*", Physica A (in press), nlin.CD/1009.3049.
- R.3) Manos T. & Athanassoula E.: 2011, "*Regular and chaotic orbits in barred galaxies - I. Applying the SALI/GALI method to explore their distribution in several models*", MNRAS, 415, 629-642.
- R.4) Libert A.-S., Hubaux C. & Carletti T.: 2011, "*The Global Symplectic Integrator: an efficient tool for stability studies of dynamical systems. Application to the Kozai resonance in the restricted three-body problem*", MNRAS, 414, 659-667.
- R.5) Maffione N.P., Giordano C.M. & Cincotta P.M.: 2011, "*Testing a fast dynamical indicator: The MEGNO*", Int. J. Non-Linear Mech., 46, 23-34.
- R.6) Macek M., Dobeš J., Stránský P. & Cejnar P.: 2010, "*Regularity-Induced Separation of Intrinsic and Collective Dynamics*", Phys. Rev. Lett., 105, 072503.
- R.7) Macek M., Dobeš J. & Cejnar P.: 2010, "*Occurrence of high-lying rotational bands in the interacting boson model*", Phys. Rev. C, 82, 014308.
- R.8) Zhong S.-Y. & Wu X.: 2010, "*Manifold corrections on spinning compact binaries*", Phys. Rev. D, 81, 104037.
- R.9) Antonopoulos Ch., Basios V. & Bountis T.: 2010, "*Weak chaos and the 'Melting Transition' in a confined microplasma system*", Phys. Rev. E, 81, 016211.
- R.10) Christodoulidi H.: 2009, "*Dynamics of low dimensional tori and chaos in many degrees of freedom Hamiltonian systems*", Ph.D Thesis, Division of Applied Analysis, Department of Mathematics, Univ. of Patras (in Greek).
- R.11) Waż P. & Bielińska-Waż D.: 2009, "*Asymmetry coefficients as indicators of chaos*", Acta Phys. Pol. A, 116, 987-991.
- R.12) Stránský P., Hruška P. & Cejnar P.: 2009, "*Quantum chaos in the nuclear collective model: Classical-quantum correspondence*", Phys. Rev. E, 79, 046202.
- R.13) Bountis T. & Papadakis K. E.: 2009, "*The stability of vertical motion in the N-body circular Sitnikov problem*", Cel. Mech. Dyn. Astr., 104, 205-225.
- R.14) Balestrino A., Caiti A. & Crisostomi E.: 2009, "*Generalised entropy of curves for the analysis and classification of dynamical systems*", Entropy, 11, 249-270.
- R.15) Bountis T., Manos T. & Christodoulidi H.: 2009, "*Application of the GALI Method to Localization Dynamics in Nonlinear Systems*", J. Comp. Appl. Math., 227, 17-26.
- R.16) Gottwald G. A. & Melbourne I. : 2009, "*On the Implementation of the 0-1 Test for Chaos*", SIAM J. Appl. Dynam. Syst., 8, 129-145.
- R.17) Harsoula M. & Kalapotharakos C.: 2009, "*Orbital structure in N-body models of barred-spiral galaxies*", MNRAS, 394, 1605-1619.
- R.18) Nagaitsev S., Danilov V. & Romanov A.: 2009, "*Search for integrable 4-D accelerator mappings*", Beams-doc 3374 (<http://beamdocs.fnal.gov/AD-public/DocDB/ShowDocument?docid=3374>).
- R.19) Sideris I. : 2009, "*Chaos analysis using the patterns method*", in "Chaos in Astronomy", Astrophysics and Space Science Proceedings, eds. Contopoulos G. & Patsis P. A., Springer-Verlag, 347-355.
- R.20) Kalapotharakos C.: 2009, "*Orbital distributions and self-consistency in elliptical galaxies*", in "Chaos in Astronomy", Astrophysics and Space Science Proceedings, eds. Contopoulos G. & Patsis P. A., Springer-Verlag, 215-224.
- R.21) Manos T. & Athanassoula E.: 2009, "*Dynamical study of 2D and 3D barred galaxy models*", in "Chaos in Astronomy", Astrophysics and Space Science Proceedings, eds. Contopoulos G. & Patsis P. A., Springer-Verlag, 115-122.
- R.22) Harsoula M., Contopoulos G. & Kalapotharakos C.: 2009, "*Orbital structure in barred galaxies and the role of chaos*", in "Chaos in Astronomy", Astrophysics and Space Science Proceedings, eds. Contopoulos G. & Patsis P. A., Springer-Verlag, 53-61.
- R.23) Cvitanović P., Artuso R., Mainieri R., Tanner G. & Vattay G.: 2009, online book "*Chaos: Classical and Quantum. Volume I: Deterministic Chaos*", version 12.3.5, <http://chaosbook.org/>.
- R.24) Kovács B.: 2008, "*Survey of chaoticity of zones near equilibrium points for the restricted problem of three bodies, with SALI and FLI surfaces, calculated with a conservative integrator*", Műszaki Szemle, 43, 32-40 (<http://www.epa.hu/html/vgi/kardexlap.phtml?id=28>).
- R.25) Petalas, Y. G., Antonopoulos C. G., Bountis T. C. & Vrahatis, M. N.: 2008, "*Evolutionary methods for the approximation of the stability domain and frequency optimization of conservative maps*", Int. J. Bifurc. Chaos, 18, 2249-2264.

- R.26) Balestrino A., Caiti A., Crisostomi E. & Grioli G.: 2008, "A generalized entropy of curves: an approach to the analysis of dynamical systems", Proceedings of the 47<sup>th</sup> IEEE Conference on Decision and Control (CDC), Cancun, Mexico, 856-861.
- R.27) Yuasa M. & Saha L. M.: 2008, "Indicators of chaos", Bulletin of the Research Institute for Science and Technology, Kinki Univ., Osaka, Japan, 20, 1-20, <http://www.rist.kindai.ac.jp/no.20/yuasa.pdf>.
- R.28) Manos A.: 2008, "A study of Hamiltonian dynamics with applications to models of barred galaxies", Ph.D Thesis, Observatoire Astronomique de Marseille-Provence, Univ. de Provence (Aix-Marseille I) and Division of Applied Analysis, Department of Mathematics, Univ. of Patras.
- R.29) Losada J. C., Benito R. M. & Borondo F.: 2008, "Frequency map analysis of the 3D vibrational dynamics of the LiCN/LiNC molecular system", Eur. Phys. J. Sp. Top., 165, 183-193.
- R.30) Vallejo J. C., Viana R. L. & Sanjuán M. A. F.: 2008, "Local predictability and nonhyperbolicity through finite Lyapunov exponent distributions in two-degrees-of-freedom Hamiltonian systems", Phys. Rev. E, 78, 066204.
- R.31) Kalapotharakos C.: 2008, "The rate of secular evolution in elliptical galaxies with central masses", MNRAS, 389, 1709-1721.
- R.32) Koukouloyannis V., Tziotziou T. & Voyatzis G.: 2008, "A method for studying the stability and the existence of discrete breathers in a chain of coupled symplectic maps", Nonlin. Phenom. Complex Syst., 11, 233-240.
- R.33) Efthymiopoulos C., Voglis N. & Kalapotharakos C.: 2008, "Special features of galactic dynamics", Lect. Notes Phys. 729, 297-389.
- R.34) Wu X. & Xie Y.: 2008, "Resurvey of order and chaos in spinning compact binaries", Phys. Rev. D, 77, 103012.
- R.35) Soulis P. S., Papadakis K. E. & Bountis T.: 2008, "Periodic orbits and bifurcations in the Sitnikov four-body problem", Cel. Mech. Dyn. Astr., 100, 251-266.
- R.36) Faber N. T., Boily C. M. & Portegies Zwart S.: 2008, "On time-dependent orbital complexity in gravitational N-body simulations", MNRAS, 386, 425-439.
- R.37) Karanis G. I. & Vozikis Ch. L. : 2008, "Fast detection of chaotic behavior in galactic potentials", Astronomische Nachrichten, 329, 403-412.
- R.38) Voyatzis G.: 2008, "Chaos, Order, and Periodic Orbits in 3:1 Resonant Planetary Dynamics", Astroph. J., 675, 802-816.
- R.39) Lukes-Gerakopoulos G., Voglis N. & Efthymiopoulos C.: 2008, "The production of Tsallis entropy in the limit of weak chaos and a new indicator of chaoticity", Physica A, 387, 1907-1925.
- R.40) Paleari S. & Penati T.: 2008, "Numerical Methods and Results in the FPU Problem", Lect. Notes Phys., 728, 239-282.
- R.41) Tailleur J.: 2007, "Grandes déviations, physique statistique et systèmes dynamiques", Ph.D. Thesis, L'Université Pierre et Marie Curie (in French).
- R.42) Kovács B.: 2007, "About the efficiency of Fast Lyapunov Indicator surfaces and Small Alignment Indicator surfaces", Astron. Dept. of the Eötvös Univ., PADEU, 19, 221-236.
- R.43) Petalas, Y. G., Parsopoulos, K. E. & Vrahatis, M. N.: 2007, "Entropy-Based Memetic Particle Swarm Optimization for Computing Periodic Orbits of Nonlinear Mappings", IEEE 2007 Congress on Evolutionary Computation (CEC 2007), Singapore, 2040-2047.
- R.44) Saha L. M. & Budhraj M.: 2007, "The largest eigenvalue: an indicator of chaos?", Int. J. Appl. Math. Mech., 3(1), 61-71.
- R.45) Voglis N., Harsoula M. & Contopoulos G.: 2007, "Orbital structure in barred galaxies", MNRAS, 381, 757-770.
- R.46) Stránský P., Cejnar P. & Macek M.: 2007, "Order and chaos in the Geometric Collective Model", Phys. Atom. Nucl., 70(9), 1572-1576.
- R.47) Macek M., Stránský P., Cejnar P., Heinze S., Jolie J. & Dobeš J.: 2007, "Classical and quantum properties of the semiregular arc inside the Casten triangle", Phys. Rev. C, 75, 064318.
- R.48) Soulis P., Bountis T. & Dvorak R.: 2007, "Stability of motion in the Sitnikov 3-body problem", Cel. Mech. Dyn. Astr., 99, 129-148.
- R.49) Capuzzo-Dolcetta R., Leccese L., Merritt D. & Vicari A.: 2007, "Self-consistent models of cuspy triaxial galaxies with dark matter haloes", Astroph. J., 666, 165-180.
- R.50) Antonopoulos Ch.: 2007, "Stability and chaos in Hamiltonian systems of many degrees of freedom: from classical to statistical mechanics", Ph.D. Thesis, Division of Applied Analysis, Department of Mathematics, Univ. of Patras (in Greek).
- R.51) Lunedei E.: 2006, "Ricorrenze di Poincaré in sistemi dinamici a bassa dimensionalità", Ph.D. Thesis, Dipartimento di Fisica, Univ. degli studi di Bologna (in Italian).

- R.52) Antonopoulos Ch. & Bountis T.: 2006, "*Detecting order and chaos by the Linear Dependence Index (LDI) method*", ROMAI J., Vol. 2, No. 2, 1-13.
- R.53) Manos T. & Athanassoula E.: 2006, "*Chaos and the dynamical evolution of barred galaxies*", in "The Fabulous Destiny of Galaxies: Bridging Past and Present. Proceedings of the Vth Marseille International Cosmology conference", eds. LeBrun V., Mazure A., Arnouts S. & Burgarella D., Paris: Frontier Group, ISBN 2914601190, 541-542.
- R.54) Süli Á.: 2006, "*Motion indicators in the 2D standard map*", Astron. Dept. of the Eötvös Univ., PADEU, 17, 47-62.
- R.55) Süli Á.: 2006, "*Speed and efficiency of chaos detection methods*", in "Proceedings of the 4th Austrian Hungarian workshop on Celestial Mechanics", eds. Süli Á., Freistetter F. & Pál A., Publications of the Astronomy Department of the Eötvös University, Vol. 18, 179-189.
- R.56) Wu X. Huang T.-Y. & Zhang H.: 2006, "*Lyapunov indices with two nearby trajectories in a curved spacetime*", Phys. Rev. D, 74, 083001.
- R.57) Barrio R.: 2006, "*Painting chaos: A gallery of sensitivity plots of classical problems*", Int. J. Bifurc. Chaos, 16(10), 2777-2798.
- R.58) Barrio R.: 2006, "*Painting chaos:  $OFL^2_{TT}$* ", in "Actas de las VIII Jornadas de Mecánica Celeste", Monografías de la Real Academia de Ciencias de Zaragoza, 28, 85-94, <http://www.unizar.es/acz/05Publicaciones/Monografias/MonografiasPublicadas/Monografia28/IndMonogr28.htm>
- R.59) Manos T. & Athanassoula E.: 2006, "*Barred Galaxies: Studying the chaotic and ordered nature of orbits*", in "Recent Advances in Astronomy and Astrophysics: 7th International Conference of the Hellenic Astronomical Society", ed. Solomos N., AIP Conference Proceedings, Vol. 848, 662-668.
- R.60) Voglis N. & Kalapotharakos C.: 2006, "*The role of ordered and chaotic motion in N-body models of elliptical galaxies*", in "Astrophysical Disks", eds. Fridmann A. M., Marov M. Ya & Kovalenko I. G., ASSL series, Springer, 157-194.
- R.61) Bountis T. : 2006, "*Stability of motion: From Lyapunov to the dynamics of N-degree of freedom Hamiltonian systems*", Nonlinear Phen. Compl. Syst., 9(3), 209-239.
- R.62) Voglis N., Stavropoulos I. & Kalapotharakos C.: 2006, "*Chaotic motion and spiral structure in self-consistent models of rotating galaxies*", MNRAS, 372, 901-922.
- R.63) Antonopoulos Ch., Petalas G., Bountis T. & Vrahatis M. N.: "*Determination of the dynamic aperture of symplectic mappings using evolution algorithms*", in "Order and Chaos", Vol. 9, Proceedings of the 18<sup>th</sup> Summer School – Panhellenic Conference ‘Non linear Science and Complexity’, eds. Bountis T. & Vlahos N., University of Thessaly Publications, 195-208 (in Greek).
- R.64) Voglis N. & Kalapotharakos C.: 2006, "The role of order and chaos in dense gravitational systems (D.G.S.)", in "Order and Chaos", Vol. 9, Proceedings of the 18<sup>th</sup> Summer School – Panhellenic Conference ‘Non linear Science and Complexity’, eds. Bountis T. & Vlahos N., University of Thessaly Publications, 135-148 (in Greek).
- R.65) Bountis T. : 2006, "*Stability of motion: From Lyapunov to the dynamics of N-degree of freedom Hamiltonian systems*", in "Order and Chaos", Vol. 9, Proceedings of the 18<sup>th</sup> Summer School – Panhellenic Conference ‘Non linear Science and Complexity’, eds. Bountis T. & Vlahos N., University of Thessaly Publications, 17-59.
- R.66) Gontikakis C., Efthymiopoulos C. & Anastasiadis A. : 2006, "*Regular and chaotic dynamics in 3D reconnecting current sheets*", MNRAS, 368, 293-304.
- R.67) Sideris I. V.: 2006, "*Measure of orbital stickiness and chaos strength*", Phys. Rev. E, 73, 066217.
- R.68) Antonopoulos Ch. & Bountis T. : 2006, "*Stability of simple periodic orbits and chaos in a Fermi-Pasta-Ulam lattice*", Phys. Rev. E, 73, 056206.
- R.69) Manos T. & Athanassoula E.: 2005, "*Detecting chaotic and ordered motion in barred galaxies*", in ‘SF2A-2005: Semaine de l’ Astrophysique Française’, eds. Casoli F., Contini T., Hameury J.M. & Pagani L., EDP-Sciences, Conference Series, 631-632.
- R.70) Wu X. & Huang T. : 2005, "*Several diagnostic indexes for orbital chaos*", Progress in Astronomy, 23, 4, 318-330 (in Chinese).
- R.71) Sándor Z., Süli Á & Érdi B. : 2005, "*Stability of (exo)planetary systems*", in ‘Plasma-and Astrophysics: from laboratory to outer space’ British-Romanian-Hungarian N+N+N Workshop for Young Researchers, eds. Ballai I., Forgács-Dajka E, Marcu A. & Petrovay K., Astron. Dept. of the Eötvös Univ., PADEU, 15, 211-219.
- R.72) Howard J. E.: 2005, "*Discrete Verial theorem*", Cel. Mech. Dyn. Astron., 92, 219-241.
- R.73) Kalapotharakos C. & Voglis N.: 2005, "*Global dynamics in self-consistent models of elliptical galaxies*", Cel. Mech. Dyn. Astron., 92, 157-188.

- R.74) Sideris I. V.: 2005, "*Characterization of Chaos: A New, Fast, and Effective Measure*", in 'Nonlinear Dynamics in Astronomy and Physics: In Memory of Henry E. Kandrup', Annals of the New York Academy of Sciences, Vol. 1045, 79-92.
- R.75) Kalapotharakos C. : 2005, "*Order and Chaos in self consistent models of elliptical galaxies*", Ph.D Thesis, Section of Astrophysics, Astronomy and Mechanics, Physics Department, Univ. of Athens (in Greek).
- R.76) Barrio R.: 2005, "*Sensitivity tools vs. Poincaré sections*", Chaos Solitons & Fractals, 25, 3, 711-726.
- R.77) Kalapotharakos C., Voglis N. & Contopoulos G. : 2004, "*Chaos and secular evolution of triaxial N-body galactic models due to an imposed central mass*", Astron. Astroph., 428, 905-923.
- R.78) Sándor Z., Érdi B., Széll A. & Funk B. : 2004, "*The relative Lyapunov indicator: an efficient method of chaos detection*", Cel. Mech. Dyn. Astron., 90, 127-138.
- R.79) Manos Th. : 2004, "*Regular and chaotic dynamics of multi degrees of freedom Hamiltonian systems*", M.Sc. Thesis, Division of Applied Analysis, Department of Mathematics, Univ. of Patras, <http://master.math.upatras.gr/~thanosm/Master%20Thesis.htm>, (in Greek).
- R.80) Széll A., Érdi B., Sándor Z. & Steves B. : 2004, "*Chaotic and stable behaviour in the Caledonian Symmetric Four-Body problem*", MNRAS, 347, 380-388.
- R.81) Széll A. : 2003, "*Investigation of the Caledonian Symmetric Four-Body Problem*", Ph.D. Thesis, Glasgow Caledonian University.
- R.82) Parsopoulos K. E. & Vrahatis M. N. : 2003, "*Computing periodic orbits of nondifferentiable / discontinuous mappings through Particle Swarm Optimization*", IEEE Swarm Intelligence Symposium (SIS 2003), Indianapolis, USA, 34-41 (<http://www.math.upatras.gr/~kostasp/papers/perorb.pdf>).
- R.83) Voglis N., Kalapotharakos C., Stavropoulos I. & Efthymiopoulos C.: 2003, "*The level of chaos in N-body models of elliptical galaxies*", in "Lecture Notes in Physics - Galaxies and Chaos", eds. Contopoulos G. & Voglis N., Springer – Verlag, Berlin, Heidelberg, 117-125.
- R.84) Buric N., Rampioni A., Turchetti G. & Vaienti S. : 2003, "*Weak chaos and Poincaré recurrences for area preserving maps*", J. Phys. A, 36, L209-L215.
- R.85) Vallejo J. C., Aguirre J. & Sanjuan M. A. F. : 2003, "*Characterization of the local instability in the Hénon-Heiles Hamiltonian*", Phys. Let. A, 311, 26-38.
- R.86) Voglis N., Kalapotharakos C. & Stavropoulos I. : 2002, "*Mass components in ordered and in chaotic motion in galactic N-body models*", MNRAS, 337, 619-630.
- R.87) Contopoulos G. : 2002, "*Order and Chaos in Dynamical Astronomy*", Springer – Verlag, Berlin, Heidelberg.
- R.88) Antonopoulos Ch. : 2002, "*Singularity analysis and study of the motion of the Hydrogen atom in a van der Waals Potential*", M.Sc. Thesis, Division of Applied Analysis, Department of Mathematics, Univ. of Patras, [http://www.math.upatras.gr/~antonop/downloads/pdf\\_files/my%20masters%20thesis.pdf](http://www.math.upatras.gr/~antonop/downloads/pdf_files/my%20masters%20thesis.pdf), (in Greek).