

## Βιογραφικό Σημείωμα

<b>Όνομα</b>	<b>Ευθυμία Μελετλίδου</b>
Θέση	Αναπληρώτρια καθηγήτρια, Τμήμα Φυσικής Α.Π.Θ.
Σπουδές	Πτυχίο Τμήματος Φυσικής Α.Π.Θ. 1990 Μεταπτυχιακό Πανεπιστήμιο Λονδίνου 1991 Διδακτορικό Τμήμα Φυσικής Α.Π.Θ. 1996
Επιστημονική Εμπειρία	<p>Human Capital and Mobility CHRX-CT93-0330/DG ‘<u>Order and Chaos in Conservative Dynamical Systems</u>’ (1994-1996, επιστ. υπεύθυνος καθ. κ. Ι. Χατζηδημητρίου)</p> <p>ΠΕΝΕΔ-95 No 1857 με τίτλο «<u>Τάξη και χάος σε συντηρητικά δυναμικά συστήματα και εφαρμογές στην Αστρονομία, την Ουράνια Μηχανική και Ατομική Φυσική</u>» (επιστ. υπεύθυνος αν. καθ. κ. Χ. Βάρβογλης)</p> <p>TMR FMRX-CT-960062 με τίτλο "<u>Spatio-temporal instabilities in deformation and fracture mechanics, materials science and nonlinear physics aspects</u>" (επιστ. υπεύθ. καθ. κ. Η. Αύφαντης)</p> <p>2003-2018 Επίκουρος Καθηγήτρια, Τμήμα Φυσικής, Α.Π.Θ. Από το Μάρτιο 2004-2007 ήμουν επιστημονικώς υπεύθυνη του Ερευνητικού Προγράμματος ΠΥΘΑΓΟΡΑΣ Νο. 21879 «<u>Δυναμικά Συστήματα: Συμμετρίες, ολοκληρωσιμότητα και μη ολοκληρωσιμότητα</u>»</p> <p>2007-2009 Επιστημονικώς Υπεύθυνη στο Collaborative Linkage Grant του Ν.Α.Τ.Ο. “Forecasting the Effect of Infectious Disease Outbreaks” CLG 982791</p> <p>2018-σήμερα Αναπληρώτρια Καθηγήτρια, Τμήμα Φυσικής, Α.Π.Θ.</p>
Ερευνητικό Έργο	<p><u>Ι. Δημοσιεύσεις σε επιστημονικά περιοδικά με κριτές</u></p> <p>E1. S.Ichtiaroglou &amp; E.Meletlidou: 1990, ‘On monoparametric families of orbits sufficient for integrability of planar potentials with linear and quadratic invariants’, J. Phys. A: Math. Gen. <b>23</b>, 3673-3679.</p> <p>E2. S.Ichtiaroglou, G.Voyatzis &amp; E.Meletlidou: 1991, ‘Conditions for the existence of periodic solutions to integrable two-dimensional Hamiltonian systems’, Phys. Rev. <b>43A</b>, 7043-7045.</p> <p>E3. E.Meletlidou &amp; S.Ichtiaroglou: 1994, ‘A criterion for non-</p>

- integrability based on Poincaré's theorem', *Physica D* **71**, 261-268.
- E4. E.Meletlidou & S.Ichtiaroglou: 1994, 'On the non-existence of an analytic integral of motion in periodically perturbed one degree of freedom Hamiltonian systems', *Phys. Lett. A* **188**, 157-163.
- E5. E.Meletlidou & S.Ichtiaroglou: 1994, 'On the number of isolating integrals in perturbed Hamiltonian systems with  $n \geq 3$  degrees of freedom', *J. Phys. A: Math. Gen.* **27**, 3919-3926.
- E6. S.Ichtiaroglou & E.Meletlidou: 1996, ' $\Psi$ -series and obstructions to integrability of periodically perturbed one degree of freedom Hamiltonians', *Phys. Lett. A* **224**, 68-76.
- E7. U.Locatelli & E.Meletlidou: 1998, 'Convergence of Birkhoff normal form for essentially isochronous systems', *Meccanica* **33**, 195-211.
- E8. G.Bozis & E.Meletlidou: 1998, 'Nonintegrability detected from geometrically similar orbits', *Celest. Mech. Dyn. Astron.* **68**, 335-346.
- E9. E.Meletlidou & S.Ichtiaroglou: 1999, 'Isolated periodic orbits and stability in separable potentials', *Celest. Mech. Dyn. Astron.* **71**, 289-300.
- E10. K.Wodnar, S.Ichtiaroglou & E.Meletlidou: 1999, 'Non-integrability and continuation of fixed points of  $2n$ -dimensional perturbed twist maps', *Physica D* **128**, 70-86.
- E11. S. Ichtiaroglou, E.Meletlidou & K.Wodnar: 2000, 'A method for evaluating the stability of fixed points in perturbed symplectic maps', *Chaos, Solitons and Fractals* **11**, 245-250.
- E12. E.Meletlidou: 2000, 'A nonintegrability test for perturbed separable planar Hamiltonians', *Phys. Lett. A*, **270**, 47-54.
- E13. E.Meletlidou: 2000, 'The Mel'nikov subharmonic function and the non-existence of analytic integrals in non-autonomous systems', *Celest. Mech. Dyn. Astr.* **78**, 161-166.
- E14. E.Meletlidou, S.Ichtiaroglou and F.J. Winterberg: 2001 'Non-integrability of Hill's lunar problem', *Celest. Mech. Dyn. Astr.* **80**, 145-156.
- E15. E.Meletlidou, G.Voyatzis and S.Ichtiaroglou: 2001 'Obstructions

- to the continuation of analytic integrals of Hamiltonian systems under non-Hamiltonian perturbations' Phys. Lett. A, **286**, 55-60.
- E16. E.Meletlidou, J.Pouget, G.Maugin and E.Aifantis: 2002, 'The relation between energy and pseudomomentum in the elastic-crystal Boussinesq equation', J. Mech. Behaviour of Materials, **13**, 107-115
- E17. G.Voyatzis, E.Meletlidou and S.Ichtiaroglou: 2002 'Large-scale chaos for arbitrarily small perturbations in nontwist Hamiltonian systems', Chaos, Solitons and Fractals **14**, 1179-1191.
- E18. F.J.Winterberg and E.Meletlidou: 2004 'Non-continuation of integrals of the rotating two-body problem in Hill's lunar problem', Celest. Mech. Dyn. Astr. **88**, 37-49.
- E19. E.Meletlidou, J.Pouget, G.Maugin and E.Aifantis: 2004, 'Invariant relations in a Boussinesq type equation' Chaos, Solitons and Fractals **22**, 613-625.
- E20. E.Meletlidou, G.Stagika and S.Ichtiaroglou: 2005, 'Nonintegrability and structure of the resonance zones in a class of galactic potentials', Celest. Mech. Dyn. Astr. **91**, 323-335.
- E21. D.Voyatzi and E.Meletlidou: 2006, 'A nonintegrability criterion for adiabatic systems', Int. J. of Bifurcation and Chaos **16**, No 6, 1829-1833.
- E22. E.Meletlidou and G.Stagika: 2006, 'On the continuation of degenerate periodic orbits in Hamiltonian systems', Regular & Chaotic Dynamics **11**, 131-138.
- E23. E.Meletlidou and P.G.L.Leach: 2007, 'Singularity analysis in nonlinear biomathematical models: Two case studies', Chaos, Solitons and Fractals **34**, 903-913.
- E24. D. Voyatzi and E. Meletlidou: 2008, "Criteria for large-scale chaos in the problem of homogeneous magnetization", Nonlinear Phenomena in Complex System, Vol **11**, No 2, 269-273.
- E25. I.I.Maglevany, E.Meletlidou, G.Stagika: 2011, "Numerical investigation of bifurcations of equilibria and Hopf bifurcations in disease transmission models", Communications in Nonlinear Science and Numerical Simulations, Vol **16**, No 1, 284-295.
- E26. Maaita J.O., Tsaklidis G, Meletlidou E., 2013, «The

Homogeneous Markov System (HMS) as an elastic medium The three-dimensional case», Communications in Statistics-Theory and Methods (accepted).

E27. Maaita J.O., Meletlidou E., Vakakis A. F, Rothos V., 2013, «The effect of Slow Flow Dynamics on the Oscillations of a singular damped system with an essentially nonlinear attachment» Journal of Applied Nonlinear Dynamics, (accepted).

Maaita J.O., Meletlidou E., Vakakis A.F., Rothos V., 2013, “The effect of slow flow dynamics on the Oscillations of a Singular Damped System with an Essentially Nonlinear Attachment” , Journal of Applied Nonlinear Dynamics, **2**(4) 315-328.

E28. J.O. Maaita and E. Meletlidou E, 2013, “Analytical Homoclinic Solution of a Two-Dimensional Nonlinear System of Differential Equations”, Journal of Nonlinear Dynamics, Volume 2013, Article ID 879040, 4 pages and E

E 29 J. O. Maaita, I. M. Kyprianidis, Ch. K. Volos., Meletlidou “The Study of a nonlinear Dyffing-Type Oscillator Driven by Two Voltage Sources”, 2013, Journal of engineering Science and Technology review **6** (4), 78-80

E30. N. Kallinikos and E. Meletlidou, 2013, “Symmetries of charged particle motion under time independent electromagnetic fields”, J.Phys.A:Math.Theor. **46**, 305202

E31. J.O. Maaita, E. Meletlidou, A.F. Vakakis and V.Rothos, 2014, “The Dynamics of the Slow Flow of a Singular Damped Nonlinear Ssystem and It Parametric Study”, Journal of Applied Nonlinear Dynamics, **3** (1), p.37-49

E32. Jamal-Odyseas Maaita and Efthymia Meletlidou, 2014, “The Effect of Slow Invariant with an Essential Nonlinear Attachment ”, Journal of Nonlinear Dynamics, Volume 2014, Article ID 208171, 10 pages

E33. N. Kallinikos, H. Isliker, L. Vlahos and E. Meletlidou, “Integrable perturbed magnetic fields in toroidal geometry: An exact analytical flux surface label for large aspect ratio”, 2014 Physics of Plasmas **21** 064504

E34. Tacha O.I., Stouboulos I.N., Meletlidou E., Kyprianidis I.M., “The uncovered interst rate parity in a hyperchaotic system” 2018,

	<p>International Journal of Mechanics <b>12</b>,p.205-209.</p> <p>E35. J.O. Maaita, E. Meletlidou, Ch. Volos “Dynamics and Circuit Emulation of an Extreme Multistable System of Two Linear and One Nonlinear Coupled Oscillator with Hidden Attractors”, 2019, International Journal of Circuits, Systems and Signal Processing v.<b>13</b></p>