

PRODUCCIÓN CIENTÍFICA DEL
INSTITUTO DE INVESTIGACIONES
EN MATEMÁTICAS APLICADAS
Y EN SISTEMAS

ARTÍCULOS EN REVISTAS ARBITRADAS 2008

1. **Benítez, H.** [Real-time distributed control: a fuzzy and model predictive control approach for a nonlinear problem.](#) *Nonlinear Analysis: Hybrid Systems.* EUA, 2008, Vol. 2, p. 474-490.
2. **Benítez, H. and Medina, L.** [Diverse time-frequency distributions integrated to an ART2 network for non-destructive testing.](#) *Journal of Applied Research and Technology.* México, 2008, Vol. 6, No. 1, p. 14-32.

Hemeroteca

Biblioteca Central, UNAM

Centro de Ciencias Aplicadas y Desarrollo Tecnológico, UNAM

3. **Benítez, H., Solano, J., Cárdenas, F. and García, F.** [Fault classification for a class of time-varying systems by using overlapped ART2A networks.](#) *Control and Intelligent Systems.* RU, 2008, Vol. 36, No. 1, p. 64-72. **ACCESO SOLAMENTE AL RESUMEN.**
4. **Moisen, C., Benítez, H. and Medina, L.** [Ultrasonic NDT for flaws characterisation using ARTMAP network and wavelet analysis.](#) *International Journal of Materials and Product Technology.* Suiza, 2008, Vol. 33, No. 4, p. 387-403. **ACCESO SOLAMENTE AL RESUMEN.**
5. **Quiñones, P., Benítez, H., Cárdenas, F. and García, F.** [An approximation for reconfigurable Fuzzy Takagi Sugeno networked control.](#) *IEEE Potentials.* EUA, 2008, Vol. 27, No. 4, p. 38-44.
6. **Solís, M., Benítez, H., Rubio, E., Medina, L., Moreno, E., González, G. and Leija, L.** [Pattern classification of decomposed wavelet information using ART2 networks for echoes analysis.](#) *Journal of Applied Research and Technology.* México, 2008, Vol. 6, No. 1, p. 33-44.

Hemeroteca

Biblioteca Central, UNAM

Centro de Ciencias Aplicadas y Desarrollo Tecnológico, UNAM

7. **Berlanga, R.** [A topologized measure homology.](#) *Glasgow Mathematical Journal.* RU, 2008, Vol. 50, p. 359-369.
8. **Berlanga, R.** [Mass flow for non-compact manifolds.](#) *Michigan Mathematical Journal.* EUA, 2008, Vol. 56, No. 2, p. 243-264.

9. **Bladt, M., Méndez, E. and Padilla, P.** [Pricing derivatives incorporating structural market changes and in time correlation](#). *Stochastic Models*. EUA, 2008, Vol. 24, p. 164-183.
10. **Bribiesca, E.** [An easy measure of compactness for 2D and 3D shapes](#). *Pattern Recognition: The Journal of the Pattern Recognition Society*. EUA, 2008, Vol. 41, No. 2, p. 543-554.
11. **Bribiesca, E.** [A method for representing 3D tree objects using chain coding](#). *Journal of Visual Communication and Image Representation*. EUA, 2008, Vol. 19, No. 4, p. 184-198.
12. **Bribiesca, E.** [Three-dimensional tree-object representation by means of a binary descriptor](#). *Optical Engineering*. EUA, 2008, Vol. 47, No. 12, p. 1-10.
13. **Sánchez, H. and Bribiesca, E.** [Study of compression efficiency for three-dimensional discrete curves](#). *Optical Engineering*. EUA, 2008, Vol. 47, No. 7, p. 1-9.
14. **López, J., Sánchez, A., Contreras, A. and Chong, M.** [Money wages in Mexico: a tale of two industries](#). *Investigación Económica*. México, 2008, Vol. 67, No. 266, p. 13-36.

Hemeroteca

Biblioteca Central, UNAM
 Posgrado de la Facultad de Economía, UNAM
 Instituto de Investigaciones Sociales, UNAM
 Instituto de Investigaciones Económicas, UNAM
 Facultad de Ciencias Políticas y Sociales, UNAM

15. **Del Río, R., Martínez, C. and Schulz-Baldes, H.** [Spectral averaging techniques for Jacobi matrices](#). *Journal of Mathematical Physics*. EUA, 2008, Vol. 49, No. 2, p. 1-13.
16. **García, J.M.** [BTZ black hole entropy: a spin foam model description](#). *Classical and Quantum Gravity*, RU, 2008, Vol. 25, No. 24, p. 1-8.
17. **García, J.M.** [Toward a spin foam model description of black hole entropy](#). *Classical and Quantum Gravity*, RU, 2008, Vol. 25, No. 23, p. 1-4.
18. **García-Reimbert, C., Minzoni, A.A., Marchant, T.R., Smyth, N.F. and Worthy, A.L.** [Dipole soliton formation in a nematic liquid crystal in the nonlocal limit](#). *Physica D: Nonlinear Phenomena*. Holanda, 2008, Vol. 237, No. 8, p. 1088-1102.
19. **Garduño, E., Wong-Barnum, M., Volkmann, N. and Ellisman, M.H.** [Segmentation of electron tomographic data sets using fuzzy set theory principles](#). *Journal of Structural Biology*. EUA, 2008, Vol. 162, No. 3, p. 368-379.
20. **Garduño, E. and Herman, G.T.** [Parallel fuzzy segmentation of multiple objects](#). *International Journal of Imaging Systems and Technology*. EUA, 2008, Vol. 18, No. 5-6, p. 336-344.

21. *Garza, C.E., Medina, A., Padilla, P., Ramos, A. y Zalaquett, F.* Arqueoacústica maya. La necesidad del estudio sistemático de efectos acústicos en sitios arqueológicos. *Estudios de Cultura Maya*. México, 2008, Vol. 32, p. 63-87.
22. *Nichita, D.V., García, F. and Gómez, S.* Phase stability analysis using the PC-SAFT equation of state and the tunneling global optimization method. *Chemical Engineering Journal*. Países Bajos, 2008, Vol. 140, No. 1-3, p. 509-520.
23. *Erdely, A. and González-Barrios, J.M.* Exact distribution under independence of the diagonal section of the empirical copula. *Kybernetika*. República Checa, 2008, Vol. 44, No. 6, p. 826-845.
24. *Erdely, A., González-Barrios, J.M. and Nelsen, R.B.* Symmetries of random discrete copulas. *Kybernetika*. República Checa, 2008, Vol. 44, No. 6, p. 846-863.
25. *Consonni, G., Gutiérrez, E. and Veronese, P.* Compatible priors for the Bayesian model comparison with an application to the Hardy-Weinberg equilibrium model. *Test*. España, 2008, Vol. 17, No. 3, p. 585-605.
26. *Chang, Y.K., Morales, M.A., Chávez, M. and Jiménez, J.* Social interaction with a conversational agent: an exploratory study. *Journal of Information Technology Research*. EUA, 2008, Vol. 1, No. 3, p. 14-26. **ACCESO SOLAMENTE AL RESUMEN**.
27. *Jiménez, J.* Research socially responsible: may we speak of a mode 3 knowledge production? *Electronic Journal of Communication & Innovation in Health*. Brasil, 2008, Vol. 2, No. 1, p. 48-56.
28. *Williams, B.J. and Jorge, M.C.* Aztec arithmetic revisited: land area algorithms and Acolhua congruence arithmetic. *Science*. EUA, 2008, Vol. 320, No. 5872, p. 72-77.
29. *Jorge, M.C., Minzoni, A.A. and Vargas, C.A.* Influence of corner layers in the variational determination of bubble solutions of the constrained Allen-Cahn equation. *European Journal of Applied Mathematics*. RU, 2008, Vol. 19, No. 5, p. 561-574.
30. *Chiang, M.F., Gelman, R., Williams, S.L., Lee, J.Y., Casper, D.S., Martínez, M.E. and Flynn, J.T.* Plus disease in retinopathy of prematurity: development of composite images by quantification of expert opinion. *Investigative Ophthalmology and Visual Science*. EUA, 2008, Vol. 49, No. 9, p. 4064-4070. **ACCESO SOLAMENTE AL RESUMEN**.
31. *Hansen, R.M., Eklund, S.E., Benador, I.Y., Mocko, J.A., Akula, J.D., Liu, Y., Martínez, M.E. and Fulton, A.B.* Retinal degeneration in children: dark adapted visual threshold and arteriolar diameter. *Vision Research*. Holanda, 2008, Vol. 48, No. 3, p. 325-331.
32. *Hughes, A.D., Stanton, A.V., Jabbar, A.S., Chapman, N., Martínez, M.E. and McG Thom, S.A.* Effect of antihypertensive treatment on retinal microvascular changes in hypertension. *Journal of Hypertension*. RU, 2008, Vol. 26, No. 8, p. 1703-1707. **ACCESO SOLAMENTE AL RESUMEN**.

33. *Lijoi, A., Mena, R.H. and Prünster, I.* [A Bayesian nonparametric approach for comparing clustering structures in EST libraries](#). *Journal of Computational Biology*. Alemania, 2008, Vol. 15, No. 10, p. 1315-1327.
34. *Palomino, G., Martínez, J. and Méndez, I.* [Karyotype studies in cultivars of agave tequilana Weber](#). *Caryologia*. Italia, 2008, Vol. 61, No. 2, p. 144-153.

Hemeroteca

Instituto de Biología, UNAM

35. *Parra, S., Moreno, H., Méndez, I., Schnaas, L. and Romieu, I.* [Maternal dietary omega fatty acid intake and auditory brainstem-evoked potentials in mexican infants born at term: cluster analysis](#). *Early Human Development*. Irlanda, 2008, Vol. 84, No. 1, p. 51-57.
36. *Romero, G., Méndez, I., Tello, A. and Torner, C.* [Auditory brainstem responses as a clinical evaluation tool in children after perinatal encephalopathy](#). *International Journal of Pediatric Otorhinolaryngology*. RU, 2008, Vol. 72, No. 2, p. 193-201.
37. *Yamamoto, L., Posadas, C., Méndez, I., Cardoso, G., Posadas, R., Medina, A., Fajardo, A. y Juárez, G.* [Tabaquismo en adolescentes del medio urbano y rural. Características individuales y familiares asociadas](#). *Revista Médica del Instituto Mexicano del Seguro Social*. México, 2008, Vol. 46, No. 5, p. 511-518.

Hemeroteca

Biblioteca Central, UNAM

ULSA. México, D.F.

Instituto de Investigaciones sobre la Universidad y la Educación, UNAM

38. *Cisneros, L.A. and Minzoni, A.A.* [Asymptotics for kink propagation in the discrete Sine-Gordon equation](#). *Physica D-Nonlinear Phenomena*. Holanda, 2008, Vol. 237, No. 1, p. 50-65.
39. *Cisneros, L.A. and Minzoni, A.A.* [Asymptotics for supersonic soliton propagation in the Toda Lattice equation](#). *Studies in Applied Mathematics*. EUA, 2008, Vol. 120, No. 4, p. 333-349.
40. *Cisneros, L.A., Minzoni, A.A., Panayotaros, P. and Smyth, N.F.* [Modulation analysis of large-scale discrete vortices](#). *Physical Review E*. EUA, 2008, Vol. 78, No. 3, p. 1-9.
41. *Olvera, A.* [Euler, navegante de mares y planetas](#). *Miscelánea Matemática*. México, 2008, No. 46, p. 27-48.

Hemeroteca

Instituto de Matemáticas, UNAM, Unidad Morelia

42. *Olvera, A. and Petrov, N.P.* [Regularity properties of critical invariant circles of twist maps, and their universality](#). *SIAM Journal on Applied Dynamical Systems*. EUA, 2008, Vol. 7, No. 3, p. 962-987.

43. *Elizondo, R. and Padilla, P.* [An analytical approach to Mertons rational option Pricing theory. Analysis and Applications](#). Hong Kong, 2008, Vol. 6, No. 2, p. 169-182.
44. *Benítez, M., Espinosa, C., Padilla, P. and Álvarez-Buylla, E.R.* [Interlinked nonlinear subnetworks underlie the formation of robust cellular patterns in Arabidopsis epidermis: a dynamic spatial model](#). *BMC Systems Biology*. RU, 2008, Vol. 2, No. 98, p. 1-16.
45. *Álvarez-Buylla, E.R., Chaos, A., Aldana, M., Benítez, M., Cortés, Y., Espinosa, C., Hartasánchez, D., Beau, R., Malkin, D., Escalera, G.J. and Padilla, P.* [Floral morphogenesis: stochastic explorations of a gene network epigenetic landscape](#). *PLoS One*. EUA, 2008, Vol. 3, No. 11, p. e3626, (1-13).
46. *Panayotaros, P.* [Invariant tori in the discrete NLS with small amplitude diffraction management](#). *Physica D*. Holanda, 2008, Vol. 237, No. 6, p. 829-839.
47. *Panayotaros, P. and Pelinovsky, D.E.* [Periodic oscillations of discrete NLS solitons in the presence of diffraction management](#). *Nonlinearity*. RU, 2008, Vol. 21, No. 6, p. 1265-1279.
48. *Plaza, R.G.* [Multidimensional stability of martensite twins under regular kinetics](#). *Journal of the Mechanics and Physics of Solids*. RU, 2008, Vol. 56, No. 4, p. 1989-2018.
49. *Rosenblueth, J.F.* [A new derivation of second-order conditions for equality control constraints](#). *Applied Mathematics Letters*. RU, 2008, Vol. 21, No. 9, p. 910-915.
50. *De Pinho, M.R. and Rosenblueth, J.F.* [Necessary conditions for constrained problems under Mangasarian-Fromowitz conditions](#). *SIAM Journal on Control and Optimization*. EUA, 2008, Vol. 47, No. 1, p. 535-552.
51. *Cárdenas, M., Vallejo, M., Romano, P., Ruiz-Velasco, S., Ferreira, A.D. and Hermosillo, A.G.* [Personal exposure to PM_{2.5} air pollution and heart rate variability in subjects with positive or negative head-up tilt test](#). *Environmental Research*. EUA, 2008, Vol. 108, No. 1, p. 1-6.
52. *Romieu, I., García, R., Sunyer, J., Ríos, C., Alcaraz, M., Ruiz-Velasco, S. and Holguín, F.* [The effect of supplementation with Omega-3 polyunsaturated fatty acids on markers of oxidative stress in elderly exposed to PM_{2.5}](#). *Environmental Health Perspectives*. EUA, 2008, Vol. 116, No. 9, p. 1237-1242.
53. *Argatov, I.I. and Sabina, F.J.* [Acoustic diffraction by a finite number of small soft bodies](#). *Wave Motion*. EUA, 2008, Vol. 45, No. 3, p. 238-253.
54. *Argatov, I.I. and Sabina, F.J.* [Acoustic diffraction by a thin soft torus](#). *Wave Motion*. EUA, 2008, Vol. 45, No. 3, p. 846-856.
55. *Bravo, J., Rodríguez, R., Mechkar, H., Otero, J.A. and Sabina, F.J.* [Homogenization of magneto-electro-elastic multilaminated materials](#). *Quarterly Journal of Mechanics and Applied Mathematics*. EUA, 2008, Vol. 61, No. 3, p. 311-332.

56. *Guinovart, R., Rodríguez, R., Bravo, J., Sabina, F.J. and Camacho, H.* [Electro-mechanical moduli of three-phase fiber composites](#). *Materials Letters*. Holanda, 2008, Vol. 62, No. 16, p. 2385-2387.
57. *Levin, V.M., Sabina, F.J., Bravo, J., Guinovart, R., Rodríguez, R. and Valdiviezo, O.C.* [Analysis of effective properties of electroelastic composites using the self-consistent and asymptotic homogenization methods](#). *International Journal of Engineering Science*. EUA, 2008, Vol. 46, No. 8, p. 818-834.
58. *López, J.C., Rodríguez, R., Guinovart, R., Bravo, J., Fernández, L., Pérez, E., Sabina, F.J. and Maugin, G.A.* [Effective properties of non-linear elastic laminated composites with perfect and imperfect contact conditions](#). *Mechanics of Advanced Materials and Structures*. EUA, 2008, Vol. 15, No. 5, p. 375-385.
59. *León, A., Pérez, L.D., Bravo, J. and Sabina, F.J.* [Tight bounds for three-dimensional non-linear incompressible elastic composites](#). *International Journal of Engineering Science*. EUA, 2008 Vol. 46, No. 11, p. 1087-1097.
60. *Silva, L.O. and Toloza, J.H.* [Bounded rank-one perturbations in sampling theory](#). *Journal of Mathematical Analysis and Applications*. EUA, 2008, Vol. 345, No. 2, p. 661-669.
61. *Silva, L.O. and Weder, R.* [The two-spectra inverse problem for semi-infinite Jacobi matrices in the limit-circle case](#). *Mathematical Physics, Analysis and Geometry*. Holanda, 2008, Vol. 11, No. 2, p. 131-154.
62. *Weder, R.* [The boundary conditions for point transformed electromagnetic invisibility cloaks](#). *Journal of Physics A: Mathematical and Theoretical*. RU, 2008, Vol. 41, No. 415401, p. 1-17.
63. *Weder, R.* [A rigorous analysis of high-order electromagnetic invisibility cloaks](#). *Journal of Physics A: Mathematical and Theoretical*. RU, 2008, Vol. 41, No. 065207, p. 1-21.
64. *Ballesteros, M. and Weder, R.* [High-velocity estimates for the scattering operator and Aharonov-Bohm effect in three dimensions](#). *Communications in Mathematical Physics*. Alemania, 2008, Vol. 285 No. 1, p. 345-398.