

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

ARTÍCULOS EN REVISTAS ARBITRADAS 2003

1. **Acevedo, P.**, Rosenberg, I.G., Simovici, D.A. and **Stojmenovic, I.** Boolean completeness in multiple-valued set logic. *Journal of Multiple-Valued Logic and Soft Computing*. Reino Unido, 2003, Vol. 9, p. 257-272.
2. Moreno, E., **Acevedo, P.** and Castillo, M. Pulse propagation in plate elements. *European Journal of Mechanics A/Solids*. Irlanda, 2003, Vol. 22, p. 283-294.
3. Castillo, M., **Acevedo, P.** and Moreno, E. KLM model for lossy piezoelectric transducers. *Ultrasonics*. Holanda, 2003, Vol. 41, p. 671-679.
4. Aguirre, R., Salmerón, O. and **Álvarez, R.** Effects of ENSO off the southwest coast of Mexico, 1996-1999. *Geofísica Internacional*. México, 2003, Vol. 42, No. 3, p. 377-388.
5. **Álvarez, R.**, Bonifaz, R., Lunetta, R., García, C., Gómez, G., Castro, R., Bernal, A. and Cabrera, A.L. Multitemporal land-cover classification of Mexico using Landsat MSS imagery. *International Journal of Remote Sensing*. Reino Unido, 2003, Vol. 24, No. 12, p. 2501-2514.
6. **Benítez, H.** and **García, F.** Reconfigurable distributed control using smart peripheral elements. *Control Engineering Practice*. Reino Unido, 2003, No. 11, p. 975-988.
7. **Berlanga, R.** Groups of measure-preserving homeomorphisms as deformation retracts. *Journal of the London Mathematical Society*. Reino Unido, 2003, (2) 68, p. 241-254.
8. **Bladt, M.** and Marcel, F.N. Matrix-exponential distributions: calculus and interpretations via flows. *Communications in Statistics (Stochastic Models)*. EUA, 2003, Vol. 19, No. 1, p. 113-124.
9. **Bladt, M.**, González, A. and Lauritzen, S. The estimation of phase-type related functionals using Markov chain Monte Carlo methods. *Scandinavian Actuarial Journal*. Suecia, 2003, No. 4, p. 280-300.
10. **Bribiesca, E.** Scanning-curves representation for the coverage of surfaces using chain coding. *Computers & Graphics*. Reino Unido, 2003, Vol. 27, p. 123-132.
11. **Bribiesca, E.** and **Velarde, C.** A fast method for plotting binary solids composed of a large number of voxels. *Computación y Sistemas*. México, 2003, Vol. 6, No. 4, p. 247-252.

Hemeroteca	Descripción
2003 6 4	DGSCA-CU-UNAM
2003 6 4	Biblioteca Central-UNAM

12. **Sánchez, H. and Bribiesca, E.** [A method of optimum transformation of 3D objects used as a measure of shape dissimilarity](#). *Image and Vision Computing*. Reino Unido, 2003, Vol. 21, p. 1027-1036.
13. **Sánchez, H. y Bribiesca, E.** Medida de similitud para objetos 2D y 3D a través de una energía de transformación óptima. *Computación y Sistemas*. México, 2003, Vol. 7, No. 1, p. 66-75.
14. **García, R., Campos, M.A. y Pirrón, M.L.** La retención de conocimiento abstracto en estudiantes de relaciones comerciales. *Revista Intercontinental de Psicología y Educación*. México, 2003, Vol. V, No. 1, p. 24-38.

Hemeroteca	Descripción
2003 5 1	Facultad de Contaduría y Administración-UNAM
2003 5 1	Biblioteca Central-UNAM

15. **Campos, M.A.** Las universidades como organizaciones complejas y compromisos académicos. *Revista Intercontinental de Psicología y Educación*. México, 2003, Vol. V, No. 1, p. 61-65.

Hemeroteca	Descripción
2003 5 1	Facultad de Contaduría y Administración-UNAM
2003 5 1	Biblioteca Central-UNAM

16. **Casasola, S.** El núcleo de la elite colonial de Santiago de Guatemala: un bloque cohesivo. *Araucaria. Revista Iberoamericana de Filosofía, Política y Humanidades*. España, 2003, Vol. 5, No. 10, p. 80-101.
17. **Contreras, A., Gutiérrez, E. and O'Reilly, F.** [Inference using latent variables for mixtures of distributions for censored data with partial identification](#). *Communications in Statistics (Theory and Methods)*. EUA, 2003, Vol. 32, No. 4, p. 749-774.
18. **Contreras, A. and González-Barrios, J.M.** [A statistical method for the determination of the appropriate order in a general class of time series models](#). *Communications in Statistics (Theory and Methods)*. EUA, 2003, Vol. 32, No. 4, p. 875-891.
19. **Cruz, G., Minzoni, A.A., Padilla, P., Rosenbaum, M., Ryan, M.P., Smyth, N.F. and Vukasinac, T.** On the possibility of wormhole formation due to quantum effects in the gravitational collapse of a small dust shell. *Revista Mexicana de Física*. México, 2003, Vol. 49, No. 2, p. 122-124.

Hemeroteca	Descripción
2003 49 2	Instituto de Ciencias Nucleares-UNAM

20. **Del Río, R.** and *Tehebotareva, O.* [Boundary conditions of Sturm-Liouville operators with mixed spectra](#). *Journal of Mathematical Analysis and Applications*. EUA, 2003, Vol. 288, p. 518-529.
21. **Bulit, C., Díaz, C., Signoret, M. and Montagnes, D.J.S.** [Spatial structure of planktonic ciliate patches in a tropical coastal lagoon: an applications of geostatistical methods](#). *Aquatic Microbial Ecology*. Alemania, 2003, Vol. 30, p. 185-196.
22. **Díaz, C., Barba, J.F. y Gaspar, M.T.** [Variables ambientales y abundancia de los huevos de anchoa mitchilli \(pisces: engraulidae\) en la Laguna de Tamiahua, México](#). *Revista de Biología Tropical*. Costa Rica, 2003, Vol. 51, No. 2, p. 471-478.
23. **Castro, A., Frauel, Y., Tepichín, E. and Javidi, B.** [Pose estimation from a two-dimensional view by use of composite correlation filters and neural networks](#). *Applied Optics*. EUA, 2003, Vol. 42, No. 29, p. 5882-5890.
24. **Moreno, E., González, G., Leija, L., Rodríguez, O., Castillo, M. and Fuentes, M.** [Performance analysis of ultrasono-therapy transducer with contact detection](#). *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*. EUA, 2003, Vol. 50, No. 6, p. 743-747.
25. **García, F., Solano, J. and Stojmenovic, I.** [Connectivity based k-hop clustering in wireless networks*](#). *Telecommunications Systems (Kluwer)*. Holanda, 2003, Vol. 22, No. 1-4, p. 205-220.
26. **García, F., Solano, J., Stojmenovic, I. and Stojmenovic, M.** [Higher-dimensional hexagonal networks](#). *Journal of Parallel and Distributed Computing*. EUA, 2003, Vol. 63, p. 1164-1172.
27. **García, F., Moreno, E., Solano, J., Barragán, M., Sotomayor, A. y Fuentes, M.** [Sistema doppler bidireccional para medición de flujo sanguíneo basado en una arquitectura abierta](#). *Revista Mexicana de Ingeniería Biomédica*. México, 2003, Vol. XXIV, No. 2, p. 135-143.
28. **Garza, C. and Padilla, P.** [Closed geodesics on oval surfaces and pattern formation](#). *Communications in Analysis and Geometry*. EUA, 2003, Vol., 11, No. 2, p. 223-233.
29. **Del Río, H., Garza, C. and Padilla, P.** [Geodesics, soap bubbles and pattern formation in Riemann surfaces](#). *Journal of Geometric Analysis*. EUA, 2003, Vol. 13, No. 4, p. 595-604.
30. **Garza, C. and Padilla, P.** [Variational characterization of interior interfaces in phase transition models on convex plane domains](#). *Journal of Differential Equations*. EUA, 2003, No. 101, p. 1-6.
31. **Schmidt, S. and Gil, J.** [El movimiento de los grupos políticos \(cliques\) en tres periodos presidenciales de México](#). *Araucaria. Revista Iberoamericana de Filosofía, Política y Humanidades*. España, 2003, Vol. 5, No. 10, p. 68-79.
32. **Gómez, S., Del Castillo, N., Castellanos, L. and Solano, J.** [The parallel tunneling method](#). *Parallel Computing*. Holanda, 2003, Vol. 29, p. 523-533.

33. **Gómez, S., Ono, M., Gamio, C. y Fragueta, A.** [Reconstruction of capacitance tomography images of simulated two-phase flow regimes.](#) *Applied Numerical Mathematics*. Holanda, 2003, Vol. 46, p. 197-208.
34. **González-Barrios, J.M. and Quiroz, A.** [A clustering procedure based on the comparison between the k nearest neighbors graph and the minimal spanning tree.](#) *Statistics & Probability Letters*. Holanda, 2003, Vol. 62, p. 23-34.
35. **González-Barrios, J.M. and Ruiz-Velasco, S.** [The application of a new dependency measure on principal component analysis.](#) *Communications in Statistics (Simulation and Computation)*. EUA, 2003, Vol. 32, No. 3, p. 899-921.
36. Hernández, O., **González, J.** and López, R.R. [Constrained average cost Markov control processes in Borel spaces.](#) *SIAM Journal on Control and Optimization*. EUA, 2003, Vol. 42, No. 2, p. 442-448.
37. **Guinovart, R., Rodríguez, R., Bravo, J. and Sabina, F.J.** [Modeling of three-phase fibrous composite using the asymptotic homogenization method.](#) *Mechanics of Advanced Materials and Structures*. EUA, 2003, Vol. 10, p. 1-15.
38. Otero, J.A., Bravo, J., **Guinovart, R., Rodríguez, R., and Maugin, G.A.** [Analytical expressions of effective constants for a piezoelectric composite reinforced with square cross-section fibers.](#) *Archives of Mechanics*. Polonia, 2003, Vol. 55, No. 4 p. 357-371.
39. Berger, H., Gabbert, U., Köppe, H., Rodriguez, R., Bravo, J., **Guinovart, R., Otero, J.A. and Maugin, G.A.** [Finite element and asymptotic homogenization methods applied to smart composite materials.](#) *Computational Mechanics*. Alemania, 2003, Vol. 33, p. 61-67.
40. **Gutiérrez, E. and Nieto, L.E.** [Bayesian Nonparametric inference for mixed poisson processes \(with discussion\).](#) *Bayesian Statistics*. Reino Unido, 2003, Vol. 7, p. 163-179.
41. **Gutiérrez, E. and Rueda, R.** [Reference priors for exponential families.](#) *Journal of Statistical Planning and Inference*. Holanda, 2003, Vol. 110, p. 35-54.
42. **Hennart, J.P., Mund, E.H. and Del Valle, E.** [Third order nodal finite element methods with transverse and reduced integration for elliptic problems.](#) *Applied Numerical Mathematics*. Holanda, 2003, Vol. 46, p. 209-230.
43. **Jiménez, J. and Coria, S.R.** [How can internet help develop small, poorly-communicated communities?](#) *Human Systems Management*. Holanda, 2003, Vol. 22, p. 169-175.
44. **Williams, B.J. and Jorge y Jorge, M.C.** [Surface area computation in ancient Mexico: documentary evidence of Acolhua-Aztec proto-geometry.](#) *Symmetry: Culture and Science*. Hungría, 2003, Vol. 12, No. 1-2, p. 185-200.

45. **Medina, L., Moreno E., González, G. and Leija, L.** Circular ultrasonic transducer characterization: theoretical and experimental results. *Revista Mexicana de Física*. México, 2003, Vol. 49, No. 6, p. 511-518.

Descripción	Hemeroteca
2003 49 sup. 1	Instituto de Física-UNAM
2003 49 6	Instituto de Ciencias Nucleares-UNAM

46. **Palomino, G., Dolezel, J., Méndez, I. and Rubluo, A.** Nuclear genome size analysis of Agave tequilana Weber. *Caryologia*. Italia, 2003, Vol. 56, No. 1, p. 37-46.
47. **Tamez, S., Ortiz, L., Martínez, S. y Méndez, I.** Riesgos y daños a la salud derivados del uso de videoterminal. *Salud Pública de México*. México, 2003, Vol. 45, No. 3, p. 171-180.
48. **Resano, E., Méndez, I., Shamah, T., Rivera, J. and Sepúlveda, J.** Methods of the national nutrition survey 1999. *Salud Pública de México*. México, 2003, Vol. 45, p. 558-564.
49. **Esquivel, F., Méndez, I. y Ramírez, G.** Algunas alternativas para estimar la matriz de covarianza de un estimador en un modelo de regresión lineal. *Investigación Operacional*. Cuba, 2003, Vol. 24, No. 3, p. 219-231.
50. **Villegas, F., Olvera, J., Rodríguez, E., Carmona, A., Viguera, R.M. and Méndez, I.** Esophageal anastomotic failure: an experimental study. *Archives of Medical Research*. México, 2003, Vol. 34, p. 171-175.
51. **Ortiz, L., Tamez, S., Martínez, S. and Méndez, I.** Computer use increases the risk of musculoskeletal disorders among newspaper office workers. *Archives of Medical Research*. México, 2003, Vol. 34, p. 331-342.
52. **Muñoz-Ledo, P., Sánchez, M.C., Méndez, I. y Mandujano, M.** Sistemas diádicos y secuela al año de edad en niños con daño neurológico perinatal. *Perinatología y Reproducción Humana*. México, 2003, Vol. 17, No. 1, p. 10-19.

Descripción	Hemeroteca
2003 17 1	Biblioteca Central-UNAM

53. **Sanabria, M., Marques, M., Méndez, I., Del Río, N. y Pimienta, R.** Construcción de la inteligencia de 0 a 2 años en un grupo de niños sanos evaluados con las escalas ordinales de desarrollo psicológico de Uzgiris-Hunt. *Boletín Médico del Hospital Infantil de México*. México, 2003, Vol. 60, p. 408-419.

Descripción	Hemeroteca
2003 60	Biblioteca Central-UNAM
2003 60	Dirección General de Servicios Médicos-UNAM
2003 60	ENEO-UNAM
	Facultad de Medicina-UNAM

54. Carvajal, M., Rojo, F., Bolaños, A. and Méndez, I. Aflatoxin M₁ in pasteurized and ultrapasteurized milk with different fat content in Mexico. *Journal of Food Protection*. EUA, 2003, Vol. 66, No. 10, p. 1885-1892.
55. Izquierdo, F., Martínez, A., Ramírez, M. y **Méndez, I.** Diseño y análisis de series de experimentos de bloques incompletos. *Fitotecnia Mexicana*. México, 2003, Vol. 26, No. 3, p. 201-208.
56. Compeán, G., Méndez Gómez-Humarán, I. y **Méndez, I.** Estimación de la mortalidad incidental de delfines asociados a la pesca del atún en México. *Journal Inpesca*. México, 2003, No. 1, p. 5-9.
57. Romero, G. y **Méndez, I.** Potenciales provocados visuales binoculares en niños con encefalopatía perinatal, primer año de vida. *Revista de Ciencias Clínicas*. EUA, 2003, Vol. 4, No. 2, p. 71-78.

Descripción	Hemeroteca
2003 4 I	Biblioteca Central-UNAM

58. **Minzoni, A.A.**, Smyth, N.F. and Warty, A.L. Radiation from a cut off point in a two layer nonlinear TE mode waveguide. *Wave Motion*. Holanda, 2003, Vol. 37, p. 25-42.
59. François, J.L. Martín del Campo, C., François, R. and **Morales, L.B.** A practical optimization procedure for radial BWR fuel lattice design using tabu search with a multiobjective function. *Annals of Nuclear Energy*. EUA, 2003, Vol. 30, p. 1213-1229.
60. Garduño, R. and **Morales, L.B.** A genetic algorithm with conformational memories for structure prediction of polypeptides. *Journal of Biomolecular Structure and Dynamics*. EUA, 2003, Vol. 21, No. 1, p. 65-87.
61. Garduño, R. y **Morales, L.B.** Memorias conformacionales en la predicción de estructura terciaria de polipéptidos. *Revista de la Sociedad Química de México*. México, 2003, Vol. 47, No. 1, p. 6-21.

Descripción	Hemeroteca
2003 47 I	Instituto de Química-UNAM

62. Kaski, P., **Morales, L.B.**, Östergård, P.R.J., **Rosenblueth, D.A.** and **Velarde, C.** Classification of resolvable 2-(14,7,12) and 3-(14,7,5) designs. *Journal of Combinatorial Mathematics and Combinatorial Computing*. Canadá, 2003, Vol. 47, p. 65-74.
63. **O'Reilly, F.**, **Rueda, R.** and Garza-Jinich, M. How important is the effect of rounding in goodness-of-fit. *Communications in Statistics (Simulation and Computation)*. EUA, 2003, Vol. 32, No. 3, p. 953-976.
64. **Padilla, P.** Existente of nonminimal quiasi periodic solutions for some second order equations. *Topological Methods in Nonlinear Analysis*. Polonia, 2003, Vol. 20, No. 2, p. 217-228.

65. **Peralta, J.C.** and Gallagher, J.P. [Convex hull abstraction in specialization of CLP programs.](#) *Logic Based Program Synthesis and Transformation. Lecture Notes in Computer Science.* Alemania, 2003, Vol. 2664, p. 90-108.
66. **Pineda, L.A.** y Meza, I. [Un modelo para la perífrasis española y el sistema de pronombres clíticos en HPSG.](#) *Estudios de Lingüística Aplicada.* México, 2003, No. 38, p. 45-68.
67. Ruano, A.E., Fleming, P.J., Teixeira, C., **Rodríguez, K.** and Fonseca, C.M. [Nonlinear identification of aircraft gas-turbine dynamics.](#) *Neurocomputing.* Alemania, 2003, Vol. 55, p. 551-579.
68. Hernández, M. and **Rosenblueth, D.A.** [Disjunctive partial deduction of a right-to-left string-matching algorithm.](#) *Information Processing Letters.* Holanda, 2003, Vol. 87, No. 5, p. 235-241.
69. Gutiérrez, R.M., **Rosenblueth, D.A.**, Loza, J.A., Huerta, A.M., Glasner, J.D., Blattner, F.R. and Collado, J. [Regulatory network of escherichia coli: consistency between literature knowledge and microarray profiles.](#) *Genome Research.* EUA, 2003, Vol. 13, p. 2435-2443.
70. **Rosenblueth, J.F.** [Conjugate intervals for the linear fixed-endpoint control problem*](#). *Journal of Optimization Theory and Applications.* EUA, 2003, Vol. 116, No. 2, p. 393-420.
71. Rocha, A., Hernández, P., **Ruiz-Velasco, S.**, Ávila Burgos, L., Martín Palomares, T. y Lazcano, E. [Gasto de hogares durante la hospitalización de menores derechohabientes, con diagnóstico de leucemia, en dos hospitales de México.](#) *Salud Pública de México.* México, 2003, Vol. 45, No. 4, p. 285-292.
72. Nava, A., Shafer, S.L., Velázquez, Y., **Ruiz-Velasco, S.** and Toni, B. [Mathematical analysis of a pharmacodynamic model without plasma concentrations to extend its applicability.](#) *Medical Hypotheses.* EUA, 2003, Vol. 60, No. 3, p. 453-457.
73. Lin, X. and **Stojmenovic, I.** [Location based localized alternate, disjoint and multi-path routing algorithms for wireless networks.](#) *Journal of Parallel and Distributed Computing.* EUA, 2003, Vol. 63, No. 1, p. 22-32.
74. **Weder, R.** [The Lp-Lp' estimate for the Schrödinger equation on the half-line.](#) *Journal of Mathematical Analysis and Applications.* EUA, 2003, Vol. 281, p. 233-243.