

Publicações do PPGMAT

2022

- Braga, E. M. H., & Salles Neto, L. L. de .. (2022). [A MATHEMATICAL OPTIMIZATION APPROACH BASED ON LINEARIZED MIP MODELS FOR SOLVING FACILITY LAYOUT PROBLEMS](#). Pesquisa Operacional, 42, e261044.
- Renan Brito Cano Butkeraites, Luiz Leduino de Salles Neto, Michel Gendreau. [A sampling-based multi-objective iterative robust optimization method for Bandwidth Packing Problem](#), Expert Systems with Applications, Volume 203, 2022, 117337.
- Bortolete, J.C., Bueno, L.F., Butkeraites, R. et al. [A support tool for planning classrooms considering social distancing between students](#). Comp. Appl. Math. 41, 22 (2022).
- Jean Paulo dos Santos Carvalho, Rodolpho Vilhena de Moraes, Antonio Fernando Bertachini de Almeida Prado. [Analysis of the orbital evolution of space debris using a solar sail and natural forces](#), Advances in Space Research, Volume 70, Issue 1, 2022, Pages 125-143.
- Piñeros, J.O.M., de Almeida Prado, A.F.B., dos Santos, W.A. et al. [Applying the perturbative integral in aeromaneuvers around Mars to calculate the cost](#). Sci Rep 12, 5022 (2022).
- Doucha, M. and Kaufmann, P.L. (2022), [Approximation properties in Lipschitz-free spaces over groups](#). J. London Math. Soc., 105: 1681-1701.
- Mihara, Antonio; Zaks, Michael; Macau, Elbert E. N.; Medrano-T, Rene O. [Basin sizes depend on stable eigenvalues in the Kuramoto model](#). Phys. Rev. E 105 (2022), no. 5, Paper No. L052202, 5 pp.
- Santos, L.d., Corrêa, D.C., Walker, D.M. et al. [Characterisation of neonatal cardiac dynamics using ordinal partition network](#). Med Biol Eng Comput 60, 829–842 (2022).
- da Silva, R., Sellers, J.A. [Congruences for the coefficients of the Gordon and McIntosh mock theta function \$\xi\(q\)\$](#) . Ramanujan J 58, 815–834 (2022).
- Andreani, R., Haeser, G., Mito, L.M. et al. [Correction to: On the best achievable quality of limit points of augmented Lagrangian schemes](#). Numer Algor 90, 879–880 (2022).

- Cuellar Mateus DA, Prado AFBA, Sanchez DM, de Moraes RV. [Dynamics of a Particle in 3:1 Tesseral Resonance with the Dwarf Planet Haumea](#). Symmetry. 2022; 14(7):1378.
- Matheus Hansen, Paulo R. Protachevicz, Kelly C. Iarosz, Iberê L. Caldas, Antonio M. Batista, Elbert E.N. Macau. [Dynamics of uncoupled and coupled neurons under an external pulsed current](#), Chaos, Solitons & Fractals, Volume 155, 2022, 111734.
- Juliana C. Lacerda, Celso Freitas, Elbert E.N. Macau. [Elementary changes in topology and power transmission capacity can induce failures in power grids](#), Physica A: Statistical Mechanics and its Applications, Volume 590, 2022, 126704.
- da Silva, Robson; Hirschhorn, Michael D.; Sellers, James A. [Elementary proofs of infinitely many congruences for \$k\$ -elongated partition diamonds](#). Discrete Math. 345 (2022), no. 11, Paper No. 113021, 12 pp.
- Andreani, R., Fukuda, E.H., Haeser, G. et al. [Erratum to: New Constraint Qualifications and Optimality Conditions for Second Order Cone Programs](#). Set-Valued Var. Anal 30, 329–333 (2022).
- Andreani, R., Haeser, G., Mito, L.M. et al. [Global Convergence of Algorithms Under Constant Rank Conditions for Nonlinear Second-Order Cone Programming](#). J Optim Theory Appl 195, 42–78 (2022).
- Pelinovsky, E.; Kokoulina, M.; Epifanova, A.; Kurkin, A.; Kurkina, O.; Tang, M.; Macau, E.; Kirillin, M. [Gompertz model in COVID-19 spreading simulation](#). Chaos Solitons Fractals 154 (2022), Paper No. 111699, 7 pp.
- Centrone, Lucio; Diniz, Diogo; Castilho de Mello, Thiago. [Graded monomial identities and almost non-degenerate gradings on matrices](#). Linear Algebra Appl. 653 (2022), 246–265.
- Madeira, J.L.d.O., Antoneli, F. [Homeostasis in Networks with Multiple Input Nodes and Robustness in Bacterial Chemotaxis](#). J Nonlinear Sci 32, 37 (2022).
- Castilho de Mello, T. [Homogeneous involutions on upper triangular matrices](#). Arch. Math. 118, 365–374 (2022).
- Gargate, I.G., de Mello, T.C. [Images of multilinear polynomials on \$n \times n\$ upper triangular matrices over infinite fields](#). Isr. J. Math. 252, 337–354 (2022).

- Leal HB, Calheiros AJP, Barbosa HMJ, Almeida AP, Sanchez A, Vila DA, Garcia SR, Macau EEN. [Impact of Multi-Thresholds and Vector Correction for Tracking Precipitating Systems over the Amazon Basin](#). Remote Sensing. 2022; 14(21):5408.
- Gouvêa, Alessandra M. M. M.; Rubido, Nicolás; Macau, Elbert E. N.; Quiles, Marcos G. [Importance of numerical implementation and clustering analysis in force-directed algorithms for accurate community detection](#). Appl. Math. Comput. 431 (2022), Paper No. 127310, 21 pp.
- Senne, T.A., Gomes, F.A.M. & Santos, S.A. [Inexact Newton method with iterative combined approximations in the topology optimization of geometrically nonlinear elastic structures and compliant mechanisms](#). Optim Eng 24, 2145–2180 (2023).
- Brito, Matheus; Calixto, Lucas; Macedo, Tiago. [Local Weyl modules and fusion products for the current superalgebra \$sl\(1|2\)\[t\]\$](#) . J. Algebra 604 (2022), 224--256.
- Ferreira AFS, Elipe A, De Moraes RV, Prado AFBA, Winter OC, Gomes VM. [Low Thrust Propelled Close Approach Maneuvers](#). Symmetry. 2022; 14(9):1786.
- Andreani, R., Haeser, G., Mito, L.M. et al. [Naive constant rank-type constraint qualifications for multifold second-order cone programming and semidefinite programming](#). Optim Lett 16, 589–610 (2022).
- Andreani, Roberto; Gómez, Walter; Haeser, Gabriel; Mito, Leonardo M.; Ramos, Alberto. [On optimality conditions for nonlinear conic programming](#). Math. Oper. Res. 47 (2022), no. 3, 2160--2185.
- Aragão, G.S., Bezerra, F.D.M. & Da Silva, C.O.P. [On the Asymptotic Behavior of Thermoelastic Plate with Terms Concentrated in the Boundary](#). Differ Equ Dyn Syst (2022).
- Andreani, R., Haeser, G., Mito, L.M. et al. [On the best achievable quality of limit points of augmented Lagrangian schemes](#). Numer Algor 90, 851–877 (2022).
- E. G. Birgin, L. F. Bueno & J. M. Martínez (2022) [On the complexity of solving feasibility problems with regularized models](#), Optimization Methods and Software, 37:2, 405-424.
- Fagundes, Pedro Souza; de Mello, Thiago Castilho; dos Santos, Pedro Henrique da Silva. [On the Mesyan conjecture](#). Turkish J. Math. 46 (2022), no. 5, 1794--1808.
- Candido, L. [On the Semadeni derivative of Banach spaces \$C\(K,X\)\$](#) . Studia Math. 266 (2022), no. 2, 225--240.

- Mao, Y., Zou, Y., Alves, L. M., Macau, E. E. N., Taschetto, A. S., Santoso, A., & Kurths, J. (2022). [Phase coherence between surrounding oceans enhances precipitation shortages in Northeast Brazil](#). *Geophysical Research Letters*, 49, e2021GL097647.
- Cavenaghi, Leonardo Francisco and Sperança, Llohnann Dallagnol. [Positive Ricci curvature on fiber bundles with compact structure group](#) *Advances in Geometry*, vol. 22, no. 1, 2022, pp. 95-104.
- Antoneli, F.; Stewart, I. [Right network-preserving diffeomorphisms](#). *J. Singul.* 25 (2022), 1--29.
- Rodolfo Batista Negri, Antônio Fernando Bertachini de Almeida Prado. Study on Autonomous Gravity-assists with a Path-following Control, *Advances in the Astronautical Sciences*, v. 176, p 1857-1875, 2022.
- Matheus Hansen, Paulo R. Protachevicz, Kelly C. Iarosz, Iberê L. Caldas, Antonio M. Batista, Elbert E.N. Macau. [The effect of time delay for synchronisation suppression in neuronal networks](#), *Chaos, Solitons & Fractals*, Volume 164, 2022, 112690.
- de Lima Gianfelice PR, Sovek Oyarzabal R, Cunha A Jr, Vicensi Grzybowski JM, da Conceição Batista F, E N Macau E. [The starting dates of COVID-19 multiple waves](#). *Chaos*. 2022 Mar;32(3):031101.
- Ferreira LDD, Moraes RV de. [A procedure for assessing the thermal reemission effects on CBERS 04A](#). *Bol Ciênc Geod.* 2022;28(2):e2022008.
- Jhonathan O. Murcia Piñeros, Rodolpho Vilhena de Moraes, Antônio F. Bertachini de Almeida Prado. [Using low Lift-to-Drag spacecraft to perform upper atmospheric Aero-Gravity Assisted Maneuvers](#), *Advances in Space Research*, Volume 70, Issue 4, 2022, Pages 1032-1047.