

REFERENCIAS

- 1 Nayfeh, A.H. and Mook, D.T. Nonlinear oscillations. John Wiley & Sons, New York, 1979.
- 2 Moon, F.C. Chaotic and Fractal Dynamics, John Wiley & Sons, 1992.
- 3 Seydel, R. Practical bifurcation and stability analysis. Springer-Verlag, 1994
- 4 Thompson, J.M.T. and Stewart, H.B. Nonlinear dynamics and chaos. John Wiley & Sons, 1986.
- 5 Strogatz, S.H. Nonlinear dynamics and chaos. Addison-Wesley Pub. Co. 1994.
- 6 Filipich, C.P. and Rosales, M.B. A recurrence solution of strongly non-linear dynamical systems. XXI Southeastern Conference on Theoretical and Applied Mechanics, SECTAM XXI, May 19-21, 2002. 9 pp. Rivercross Publishing, Inc. Orlando, USA. ISBN 0-615-11944-1.
- 7 Filipich, C. and Rosales, M. Analytical solution for some problems with chaotic response. XVI Brazilian Congress of Mechanical Engineering, COBEM 2001, 26-30 November, 2001, Uberlandia, Brazil.
- 8 Filipich, C. and Rosales, M., Buezas, F. Soluciones analíticas para ecuaciones ordinarias no lineales. XII Congreso sobre métodos numéricos y sus aplicaciones, Enief 2001, 30 Oct. –2 Nov. 2001, Córdoba, Argentina.
- 9 Filipich C.P., Rosales M.B. and Buezas F., Some nonlinear mechanical problems solved with analytical solutions, International Journal of Latin American Applied Research, 34(2):105-123, (2004).
- 10 Filipich C.P. and M.B. Rosales M.B., A recurrence solution of strongly non-linear systems, In Developments in Theoretical and Applied Mechanics, XXI, 141-149.

- Eds. A.J. Kassab, D.W. Nicholson and I. Ionescu. Rivercross Publishing, Inc. Orlando. Proceedings, 21st. Southeastern Conference on Theoretical and Applied Mechanics (SECTAM XXI), Orlando, U.S.A (2002).
- 11 Hwang, Y.-L, Dynamic analysis for the design of CALM system in shallow and deep waters, *Journal of offshore mechanics and arctic engineering*, 119(3), 151-157. 1997.
- 12 Gottlieb, O. and Yim, S.C.S., Non-linear dynamics of a coupled surge-heave small-body ocean mooring system, *Ocean Eng.*, 24, 479-495, 1997.
- 13 Ragothama, A. and Narayanan, S. Bifurcation and chaos of an articulated loading platform with piecewise non-linear stiffness using the incremental harmonic balance method. *Ocean Eng.* 27, 1087-1107, 2000.
- 14 Xing J.T. and Price W.G., The theory of non-linear elastic ship-water interaction dynamics, *Journal of Sound and Vibration*, 230, 877-914, 2000.
- 15 Esmailzadeh, E. and Goodarzi, A. Stability analysis of a CALM floating offshore structure. *Int. Journal of Non-linear Mechanics*, 36, 917-926, 2001.
- 16 Smith, R. J. and MacFarlane, C.J. Statics of a three-component mooring line. *Ocean Eng.* 28, 899-914, 2001.
- 17 Tiber Gunnar, Numerical analyses of Cable Roof Structures. Licenciate Thesis, TRITA-BKN, Bulletin 46. Department of Structural Engineering. Royal Institute of Technology Stockholm, Sweden, (1999).
- 18 Gobat Jason, The dynamics of geometrically compliant mooring systems. PhD thesis, Masachussetts Institute od Technology,(2000).
- 19 Nakamura N., Koterayama W. and Kyozuka Y., Show drift damping due to drag

- forces action on mooring lines. Ocean Engineering 18, 283-296, (1991).
- 20 Sannasiraj S.A., Sundar V. and Sundaravadivelu R., Mooring forces and motion response of pontoon-type floating breakwaters. Ocean Engng 26, 27-48, (1998).
- 21 Sarkar A. and R. Eatock Taylor R., "Effects of mooring line drag damping on response statistics of vessels excited by first- and second-order wave forces". Ocean Engng 27, 667-686, (2000).
- 22 Peyrot A.H., Marine cable structures. ASCE Journal of Structures Division 12, 2391-2400, (1980).
- 23 Leonard J.W. and Tuah H., Nonlinear deterministic and stochastic response of cable systems with large bodies under hydrodynamics loads. Engineering Structures 8, 94,107, (1989).
- 24 Huang S., Dynamic analysis of 3-D marine cables. Ocean Engineering 21, 587-605, (1994).
- 25 Triantafyllou M.S., Bliek A. and Shin S., Dynamic analysis as a tool for open-sea mooring system design, SNAME Transactions 93, 303-324, (1985).
- 26 Bliek A., Dynamic analysis of single span cables. Ph.D. thesis. MIT, Cambridge, MA, USA, (1984).
- 27 Hover F.S., Grosenbaugh M.A. and Triantafyllou M.S., Calculation of dynamic tension in towed underwater cable. IEEE Journal of Oceanic Engineering 19, 449-457, (1994).
- 28 Webster W.C. , Mooring induced damping. Ocean Engineering 22, 571-591, (1995).
- 29 Huse E. and Matsumoto K., Mooring line camping due to first and second order

- vessel motion. Offshore Technology Conference, Paper OTC 6137.
- 30 Brown D.T., Lyons G.J. and Lyn H.M., Advances in mooring line damping. Underwater Technology 21, 5-11, (1995).
- 31 Thomas D.O. and G.E. Hearn G.E. , Deepwater mooring line dynamics with emphasis on sea-bed interference effects. Offshore Technology Conference, Paper OTC 7488, (1994).
- 32 Liu Y.G. and Bergdahl L., Influence of current and seabed friction on mooring cable response: comparison between time-domain and frequency-domain analysis. Engineering Structures 19, 945-953, (1997).
- 33 Liu Y.G. and Bergdahl L., Frequency-domain dynamic analysis of cables. Engineering Structures 19, 499-506, (1997).
- 34 Kitney and Brown D., Efficient prediction of mooring line dynamic loading with experimental verification. Proceedings of International Conference on Offshore Mechanics and Arctic Engineering, OMAE 98-0402, New York:ASME, (1998).
- 35 Leonard J.W., Idris K. and Yim S.C.S., Large angular motions of tethered surface buoys. Ocean Engineering 27, 1345-1371, (2000).
- 36 Bandium C. and Naciri M., A contribution on quasi-static mooring line damping. Journal of Offshore Mechanics Arctic Engineering 122, 125-133 (2000).
- 37 Pascoal R., et al., Equivalent force model for the effect of mooring systems. Applied Ocean Research 27, 165-172, (2005).
- 38 Pascoal R., et al., Assessment of the effect of mooring systems on the horizontal motions with an equivalent force to model. Ocean Engineering 33, 1644-1668, (2006).

- 39 Lumley, J.L., Stochastic tools in turbulence, Academic Press. (1971)
- 40 Sirovich L., Turbulence and the dynamics of coherent structures part I: coherent structures. *Quarterly of Applied Mathematics*, **45**(3):561-571, (1987).
- 41 Sirovich L., Turbulence and the dynamics of coherent structures part II: symmetries and transformations.. *Quarterly of Applied Mathematics*, **45**(3):573-582, (1987).
- 42 Sirovich L., Turbulence and the dynamics of coherent structures part III: dynamic and scaling.. *Quarterly of Applied Mathematics*, **45**(3):583-590, (1987).
- 43 Breuer, K.S. and Sirovich, L., The use of the Karhunen-Loève procedure for the calculation of linear eigenfunctions. *Journal of Computational Physics*, **96**, 277-296. (1991).
- 44 Park, H.M. and Cho, D.H., The use of Karhunen-Loève decomposition for the modeling of distributed parameter systems. *Chemical Engineering Science*, **51**(1),81-98.(1996).
- 45 Kreuzer, E. Introductory functional analysys with applications. John Wiley & Sons,(1978).
- 46 Steindl, A., Troger, H. Methods for dimension reduction and their application in nonlinear dynamics. *International Journal of Solids and Structures*, **38**, 2131-2147,(2001).
- 47 Steindl, A., Troger, H. and Zemann, J.V. Nonlinear Galerkin method in the dimension reduction of nonlinear dynamical systems. In Moon, F.C., ed., IUTAM Symposium on New Applications of Nonlinear and Chaotic Dynamics in Mechanics, Kluewer Academic Publishers, Ithaca, EUA,1-10,(1997).

- 48 Ma, X and Vakakis, A.F., Karhunen-Loève Decomposition of the transient dynamics of a multibay truss. *AIAA Journal*, **37**(8),939-946.(1996).
- 49 ALGOR Software. Versión 12.04 WIN. Pittsburg, USA: Algor Inc. (1999).
- 50 Fung Y.C., Foundation of Solid Mechanics. Edit. Prentice Hall of India. Private Ltd. N. Delhi. (1968).
- 51 Hildebrand F.B., Methods of Applied Mathematics. Prentice Hall of India. Private Ltd. N. Delhi. (1968).
- 52 T. Carrol and L. Pecora, *Nonlinear Dynamic in Circuits*, World Scientific Publishing, USA (1995).
- 53 Cuomo K.M. , Alan V. Oppenheim and Steven H. Strogatz, *Robutness and signal recovery in Synchronized Chaotic Systems*, World Scientific Publishing, USA (1993).
- 54 Filipich C. and Rosales M., *Dynamic Analysis of plane mooring chains of inextensible links*. ENIEF2007. XVI Congreso sobre Métodos Numéricos y sus Aplicaciones.Cordoba, Argentina. Octubre 2007.
- 55 Belluzzi O., Ciencia de la Construcción I, Edición española, ISBN 84-03-20174-5, PP.147-151 (1973).
- 56 Bathe K.J., Finite Element Procedures, Ed. Prentice-Hall (1995).
- 57 Filipich C. P. Comunicación interna dentro del Grupo de Investigación de Estabilidad y dinámica de elementos mecánico-estructurales. SCyT-UNS. 2008.
- 58 Escalante M.R., Rosales M.B. and Filipich C.P., Planteo y solución del problema de amarres no lineales de una plataforma flotante. In volume XXIV, Buenos Aires, Argentina, VIII Congreso de Mecánica Computacional (MECOM 2005),

- (2005).
- 59 Hwang, Y.-L, Dynamic analysis for the design of CALM system in shallow and deep waters, *Journal of offshore mechanics and arctic engineering*, 119(3), 151-157. (1997).
- 60 Rosales M.B. and Filipich C.P., Full modelling of the mooring nonlinearity in a two-dimensional floating structure, *Int. J. Nonlinear Mech*, 41,1-17 (2006).
- 61 Karhunen, K., Über Lineare Methoden in der Wahrscheinlichkeitsrechnung. *Annals of Academic Science Fennicae, Series A1 Mathematics and Physics* **37**, 3-79, (1946).
- 62 Kosambi, D., Statistics in function space. *Journal of Indian Mathematical Society*. **7**, 76-88 (1943).
- 63 Loève, M., *Fonctions Aléatoires du Second Ordre. Processus stochastiques et mouvement Brownien*, Ed. P. Levy, París. (1948).
- 64 Berkooz, G., Observations on the proper orthogonal decomposition. *Studies in turbulence*, Springer, New Cork, 229-247 (1992).
- 65 Vakakis, A.F., Manevitch, L.I., Mikhlin, Y.V., Pilipchuk, V.N. and Zevin, A.A., *Normal Modes and Localization in Nonlinear Systems*, Wiley, New York, 1996.
- 66 Filipich C.P. y Rosales M.B., A further study on the postbuckling of extensible elastic rods. *International Journal of Non-Linear Mechanics*, **35**, 997-1002 (2000).