

Bibliography

- [1] Ahmad Khalil, Rakesh Kumar., *Pointwise convergence of wavelet packet series*, Atti.Sem. Mat. Fis. Univ. Modena, XLVIII, pp.107-120 (2000).
- [2] Atanackovic T M, Stankovis B., *On a system of differential equations with fractiinal derivatives arising in rod theory*, J. Physics., A37, pp.1241-1250 (2004).
- [3] Beylkin G, Coifman R, Rokhlin., *Fast wavelet transforms and numerical algorithms I*, Commun. Pure and Appl. Math., Vol.44, pp.141-183 (1991).
- [4] Bombieri E., *Prime Territory*, The Sciences, Sept./Oct. pp.30-36 (1992).
- [5] Carlèsen L., *On convergence and growth of partial sums of Fourier series*, Acta. Math, 116, pp.135-195 (1966).
- [6] Chalishajar H D and Kantawala P S., *On the uniform convergence of the Generalized Walsh type wavelet packet series*, Indian Journal of Mathematics and Mathematical Sciences, Vol 2, No.2, pp. 93-111 (2006).
- [7] Chalishajar H D and Kantawala P S., *A direct method for solving variational problems using Walsh wavelet packets and Error Estimates*, Modern Mathematical Models, Methods and Algorithms for Real world systems, Anamaya Publishers, India, pp.235-245 (2006).

- [8] Chalishajar H D and Kantawala P S., *State space analysis using wavelet packets*, International Workshop on Applications of Wavelets to Real World Problems, Istanbul, Turkey, pp.147-163 (2005).
- [9] Chalishajar H D and Kantawala P S., *On the uniform convergence of the periodised Walsh type wavelet packet series*, Indian Journal of Pure and Applied Mathematics (Communicated).
- [10] Chalishajar H D and Kantawala P S., *Fractional Calculus using wavelet packets*, Journal of function spaces and applications (Communicated).
- [11] Chang R Y, Wang M L., *Legendre polynomials approximation to dynamic linear state equations with initial or boundary value conditions*, Int. J. Control, Vol.40, pp.215-232 (1984).
- [12] Chen C F, Tsay Y T and Wu T T., *Walsh operational matrices for fractional calculus and their applications to distributed Systems*, Journal of Franklin Inst., Vol. 303, No.3 (1977).
- [13] Chen C F, Hsiao C H., *A state space approach to Walsh series solution of linear systems*, Int.J.Syst Sci., Vol.6, pp.833-858 (1975).
- [14] Chen C F, Hsiao C H., *A Walsh series direct method for solving Variational problems*, Journal of Franklin Inst., (1976).
- [15] Chen C F, Hsiao C H., *Haar wavelet method for solving lumped and distributed parameter systems*, IEE Proc. Control Theory Appl., Vol 144, pp.87-93 (1997).
- [16] Chui K Charles., *An introduction to Wavelets*, Academic Press (1991).

- [17] Coifman R R, Meyer Y., *Remarques sur l'analyse de Fourier a fenetre* C.R. Acad.Sci. Paris, Vol 312, pp.259-261 (1991).
- [18] Coifman R R, Meyer Y, Wickerhauser M V and Quake S., *Signal processing and compression with wavelets packets*, Technical report, Yale University (1990).
- [19] Coifman R R, Meyer Y and Wickerhauser M V., *Wavelet analysis and signal processing*, Wavelets and Their Applications (M. B. Ruskai et al Eds.) Jones and Barlett Publishers, Boston, pp.153-178 (1992).
- [20] Coifman R R and Wickerhauser M V., *Entropy based algorithms for best basis selection*, IEEE Trans. Inform. Theory, Vol 38(2), pp.713-718 (1992).
- [21] Corrington M S., *Solution of differential and integral equations with Walsh functions*, IEEE Trans. Circuit Theory., Vol CT-20 No.5, pp.470-475 (1973).
- [22] Daubechies I., *Ten Lectures on Wavelets*, Society for Industrial and Applied Mathematics, Philadelphia, PA (1992).
- [23] Daubechies I., *Orthonormal bases of compactly supported wavelets*, Commun. Pure Appl. Math., Vol 41, pp.909-996 (1988).
- [24] Fang L Z., Thews R L., *Wavelets in Physics*, Singapore World Scientific (1998).
- [25] Ferenc Moricz., *On the Uniform Convergence and L^1 Convergence of Double Walsh-Fourier Series*, Studia Mathematica., Vol 102 (3) (1992).
- [26] Fine, N. J., *On the Walsh Functions*, Trans. Amer. Math. Soc., Vol 65, pp.372-414 (1949).

- [27] Gejji V, Babakhani A., *Analysis of a system of fractional differential equations*, J. Math. Anal. Appl., Vol 293, pp.511-522 (2004).
- [28] Gibbs J E, Gebbie H A., *Applications of Walsh function to transform spectroscopy*, Nature., Vol 224, pp.1012-1013 (1969).
- [29] Glabisz Wojciech., *The use of Walsh wavelet packets in linear boundary value problems*, Computers and Structures., Vol. 82, pp.131-141 (2004).
- [30] Goswami J C, Chan A K., *Fundamentals of wavelets theory, algorithms and applications*, New York, John Wiley & Sons (1999).
- [31] Harmuth H F., *Applications of Walsh function in communication*, IEEE Spect., Vol.6 No.11, pp.82-91 (1969).
- [32] Hernandez E, Weiss G., *A first course on wavelets*, CRC Press, New York (1996).
- [33] Hsiao C H., *State analysis of linear time delayed systems via Haar wavelets*, Mathematics and Computers in Simulation, Vol 44, pp.457-470 (1998).
- [34] Hsiao C H, Wang W J., *State analysis and parameter estimation of Bilnear systems via Haar wavelets*, IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications, Vol 47, pp.246-250 (2000).
- [35] Hsiao C H, Wang W J., *Haar wavelet approach to non-linear stiff systems*, Mathematics and Computers in Simulation, Vol 57, pp.347-353 (2001).
- [36] Hunt R A., *On the convergence of Fourier series*, Proceedings of the conference on Orthogonal Expansions and their Continuous Analogues, Southern Illinois University Press, pp.87-94 (1968).

- [37] Hwang C, Shih Y P., *Laguerre operational matrices for fractional calculus and applications*, Int. J. Control, Vol 34, pp.557-584 (1981).
- [38] Jan Y G and Wong K M., *Bilinear system identification by block pulse functions*, J. Franklin Inst. Vol.312 pp. 349-359 (1981).
- [39] Kelly S E, Kon M A, Rapheal L A., *Pointwise convergence of wavelet expansions*, Bull. Amer. Math. Soc., Vol 315, pp.69-87 (1989).
- [40] Kelly S E, Kon M A, Rapheal L A., *Local convergence of wavelet expansions*, J.Funct. Anal., Vol 126, pp.102-138 (1994).
- [41] King R E, Paraskevopoulos P N., *Parameter identification of discrete time SISO systems*, Int. J. Control, Vol 30, pp.1023-1029 (1979).
- [42] Lagarias J C and Wang Y., *Corrigendum and Addendum to Haar bases for $L^2(R^n)$ and Algebraic number theory*, Journal of Number Theory., Vol 57, pp.187-197 (1996).
- [43] Lagarias J C and Wang Y., *Haar bases for $L^2(R^n)$ and Algebraic number theory*, Journal of Number Theory., Vol 57, pp.187-197 (1996).
- [44] Lasse Borup and Morten Nielsen., *Nonseperable Wavelet Packets*, In Approximation Theory. X (St. Louis, Mo,2001) Innov. Appl. Math., Vanderbilt Univ. Press Nashville., pp.51-61 (2002).
- [45] Lee J D., *Review of recent work on applications of Walsh functions in Communications*, Proc.Walsh function Symp., Nav Res. Labs, Wash D.C, pp.26-35 (1970).

- [46] Lemarie P G, Meyer Y., *Ondelettes et bases hilbertiennes*, Rev. Mat. Iberoamericana, Vol 2, pp.1-18 (1986).
- [47] Mainardi F., *Fractional Calculus: Some Basic Problems in continuum and statistical Mechanics*, CISM Lecture Notes, Udine, Italy (1996).
- [48] Mallat S., *Multiresolution approximation and wavelet orthonormal bases of L^2* , Trans. Amer. Math. Soc., Vol 315, pp.69-88 (1989).
- [49] Mallat S., *A wavelet tour of signal processing*, San Diego Academic Press (1998).
- [50] Meyer Y., *Principe d'incertitude, bases Hilbertiennes et algebres d'operateurs*, Seminaire Bourbaki, Vol 662, pp.1-15 (1985-1986).
- [51] Meyer Y., *Wavelets and Operators*, Cambridge University Press, Cambridge, (1992).
- [52] Meyer Y., *Wavelets: Algorithms and Applications*, SIAM, Philadelphia, PA (1993).
- [53] Meyer Y, Coifman R R, Wickerhauser M V., *Size Properties of Wavelet Packets*, Wavelets and their Applications., Ruskai et al eds, pp.453-470 (1992).
- [54] Nielsen M., *Size Properties of Wavelet Packets*, Ph.D Thesis, Washington University., St. Louis (1999).
- [55] Nielsen M., *Walsh type Wavelet Packet Expansions*, Applied Computational Harmonic Analysis, Vol 9(3), pp. 265-285 (2000).

- [56] Nielsen M., *Nonseperable Walsh type functions on R^d* , Glasnik Mathematicki, Vol 31(1), pp.111-138 (2004).
- [57] Onneweer C W., *On Uniform Convergence for Walsh-Fourier Series*, Pacific Journal of Mathematics., Vol 34 No.1 (1970).
- [58] Paraskevopoulos P N., *A new orthogonal series approach to state-space analysis and identification*, Int. J. Systems SCI., Vol 20 No.6, pp.957-970 (1989).
- [59] Paraskevopoulos P N, Tsirikos A S, Arvanitis K G., *A new orthogonal series approach to state-space analysis of bilinear systems*, IEEE Transactions on Automatic Control., Vol 39 No.4,(1994).
- [60] Paraskevopoulos P N, Sklavounos P G, Arvanitis K G., *A new orthogonal series approach to state-space analysis and optimal control*, Proceeding IEEE part D (1994).
- [61] Paley, R. E. A. C., *A Remarkable Series of Orthogonal Functions*, Proceedings London Mathematical Society., Vol 32, pp.241-279 (1932).
- [62] Petris I, Viriage B M, Dorcak L and Fwlin L., *Fractional digital control of a beat solid: Experimental results*, International Carpathian Control Conference ICC 2002 Malenovice Czech Republic, pp. 365-370 (2002).
- [63] Picher F., *Walsh function and Optimal linear systems*, Proc. Walsh Function Symp., Nav. Res. Labs. Wash D.C., pp.17-22 (1970).
- [64] Podlubny I., *Fractional-order systems and $PI^\lambda D^\mu$ controllers*, IEEE Trans. Autom. Control, Vol 44 no.1, pp.208-214 (1990).

- [65] Resnikoff H L, Wells Jr R O., *Wavelet Analysis. The Scalable structure of information*, Springer Verlag, New York (1998).
- [66] Salem R., *Essais sur les sries trigonometirques*, Actual . Sci. et Industri., Paris No.862 (1940).
- [67] Tao T., *On the almost everywhere convergence of wavelet summation methods*, Applied and Computational Harmonic Analysis., Vol 3, pp.384-387 (1996).
- [68] Thomas C W, Welch A J., *Heart rate representation using Walsh functions*, Proc. Walsh Function Symp., Nas. Res. Labs, Wash D.C., pp.154-158 (1972).
- [69] Walter G G., *Approximation of delta functions by wavelets*, J. Approx. Theory, Vol 71, pp.329-343 (1992).
- [70] Walter G G., *Pointwise convergence of wavelet expansions*, J. Approx. Theory, Vol 80, pp.108-118 (1995).
- [71] Weickert J and Frohlich J., *Image processign using wavelet algorithm for non-linear diffusion*, Kaiserslautern University, Germany (1994).
- [72] Wickerhauser M V., *Adapted wavelet analysis from theory to software*, A. K. Peters Ltd (1994).
- [73] Wickerhauser, M.V., *Lectures on wavelet packet algorithms*, Technical Report., Washington University (1991).
- [74] Wickerhauser M V., *Acoustic signal processing with wavelet packets*, A Tutorial in Theory and Applications, Academic Press, Boston, pp.679-700 (1992).

- [75] Wu Juinn-Lin and Chen Chin-Hsing., *A new operational approach for solving fractional calculus and fractional differential equations numerically*, IEICE Trans. Fundamentals, Vol E87-A No.5 (2004).
- [76] Wu J L, Chen C H and Chen C F., *Numerical inversion of Laplace transform using Haar wavelet operational matrices*, IEEE Trans. Circuits Systems, Fundamental Theory Appl., Vol 48 No 1, pp.120-122 (2001).