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Advising Theses

ZAFER A., AKHMET M., Stability of the zero solution of impulsive differential equations by Lyapunov second method, Postgraduate, T.Yolcu(Student), 2002

ZAFER A., Oscillation of second order impulsive differential equation, Postgraduate, F.Sönmez(Student), 2001

ZAFER A., Oscillation of functional differential equations, Doctorate, Y.Yılmaz(Şahiner)(Student), 2000

ZAFER A., Numerical solutions of first order delay differential equations, Postgraduate, Ş.Özer(Student), 1998

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Asymptotic integration of second-order impulsive differential equations**
Akgol S. D., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.76, pp.1-7, 2018 (SCI-Expanded)
- II. **Oscillation criteria for a certain class of fractional order integro-differential equations**
ASLIYÜCE S., GÜVENİLİR A. F., Zafer A.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.46, no.2, pp.199-207, 2017 (SCI-Expanded)
- III. **Matrix measure approach to Lyapunov-type inequalities for linear Hamiltonian systems with impulse effect**
Kayar Z., Zafer A.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.440, no.1, pp.250-265, 2016 (SCI-Expanded)
- IV. **Lyapunov-type inequalities for nonlinear impulsive systems with applications**
Kayar Z., Zafer A.
Electronic Journal of Qualitative Theory of Differential Equations, no.27, pp.1-13, 2016 (SCI-Expanded)
- V. **Asymptotic integration of second-order nonlinear delay differential equations**
Agarwal R. P., Ertem T., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.48, pp.128-134, 2015 (SCI-Expanded)
- VI. **Oscillation of fourth-order nonlinear neutral delay dynamic equations**
Grace S. R., Zafer A.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.44, no.2, pp.331-339, 2015 (SCI-Expanded)
- VII. **Monotone positive solutions for a class of second-order nonlinear differential equations**
Ertem T., Zafer A.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.259, pp.672-681, 2014 (SCI-Expanded)
- VIII. **Stability criteria for linear Hamiltonian systems under impulsive perturbations**
Kayar Z., Zafer A.
APPLIED MATHEMATICS AND COMPUTATION, vol.230, pp.680-686, 2014 (SCI-Expanded)
- IX. **Oscillatory behavior of integro-dynamic and integral equations on time scales**
Grace S. R., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.28, pp.47-52, 2014 (SCI-Expanded)
- X. **Functional Differential and Difference Equations with Applications 2013**
Diblik J., Braverman E., Gyori I., Rogovchenko Y., Ruzickova M., Zafer A.

ABSTRACT AND APPLIED ANALYSIS, 2014 (SCI-Expanded)

- XI. **Global existence and boundedness for a class of second-order nonlinear differential equations**
Tiryaki A., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.26, no.9, pp.939-944, 2013 (SCI-Expanded)
- XII. **OSCILLATION OF $p(x)$ -LAPLACIAN ELLIPTIC INEQUALITIES WITH MIXED VARIABLE EXPONENTS**
ŞAHİNER Y., Zafer A.
MATHEMATICAL INEQUALITIES & APPLICATIONS, vol.16, no.3, pp.947-961, 2013 (SCI-Expanded)
- XIII. **Oscillation of nonlinear elliptic inequalities with $p(x)$ -Laplacian**
ŞAHİNER Y., Zafer A.
COMPLEX VARIABLES AND ELLIPTIC EQUATIONS, vol.58, no.4, pp.537-546, 2013 (SCI-Expanded)
- XIV. **Oscillation of integro-dynamic equations on time scales**
Grace S. R., Graef J. R., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.26, no.4, pp.383-386, 2013 (SCI-Expanded)
- XV. **LYAPUNOV-TYPE INEQUALITIES FOR PLANAR LINEAR DYNAMIC HAMILTONIAN SYSTEMS**
Bohner M., Zafer A.
APPLICABLE ANALYSIS AND DISCRETE MATHEMATICS, vol.7, no.1, pp.129-142, 2013 (SCI-Expanded)
- XVI. **Oscillation of even order nonlinear delay dynamic equations on time scales**
Erbe L., Mert R., Peterson A., Zafer A.
CZECHOSLOVAK MATHEMATICAL JOURNAL, vol.63, no.1, pp.265-279, 2013 (SCI-Expanded)
- XVII. **The stability of linear periodic Hamiltonian systems on time scales**
Zafer A.
APPLIED MATHEMATICS LETTERS, vol.26, no.3, pp.330-336, 2013 (SCI-Expanded)
- XVIII. **Asymptotic integration of second-order nonlinear differential equations via principal and nonprincipal solutions**
Ertem T., Zafer A.
APPLIED MATHEMATICS AND COMPUTATION, vol.219, no.11, pp.5876-5886, 2013 (SCI-Expanded)
- XIX. **Impulsive Boundary Value Problems for Planar Hamiltonian Systems**
Kayar Z., ZAFER A.
ABSTRACT AND APPLIED ANALYSIS, 2013 (SCI-Expanded)
- XX. **Recent Trends in Boundary Value Problems**
Ahmad B., Nieto J. J., O'Regan D., ZAFER A.
ABSTRACT AND APPLIED ANALYSIS, 2013 (SCI-Expanded)
- XXI. **Discrete linear Hamiltonian systems: Lyapunov type inequalities, stability and disconjugacy criteria**
Zafer A.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.396, no.2, pp.606-617, 2012 (SCI-Expanded)
- XXII. **Nonoscillation and oscillation of second-order impulsive differential equations with periodic coefficients**
ÖZBEKLER A., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.25, no.3, pp.294-300, 2012 (SCI-Expanded)
- XXIII. **Oscillation of third-order nonlinear delay difference equations**
AKTAŞ M. F., Tiryaki A., Zafer A.
TURKISH JOURNAL OF MATHEMATICS, vol.36, no.3, pp.422-436, 2012 (SCI-Expanded)
- XXIV. **Oscillation of nonlinear impulsive partial difference equations with continuous variables**
Agarwal R. P., KARAKOÇ F., Zafer A.
JOURNAL OF DIFFERENCE EQUATIONS AND APPLICATIONS, vol.18, no.6, pp.1101-1114, 2012 (SCI-Expanded)
- XXV. **Existence of solutions for a class of nonlinear boundary value problems on half-line**
Ertem T., Zafer A.
BOUNDARY VALUE PROBLEMS, 2012 (SCI-Expanded)
- XXVI. **Oscillation of higher order nonlinear dynamic equations on time scales**
Grace S. R., Agarwal R. P., Zafer A.
ADVANCES IN DIFFERENCE EQUATIONS, 2012 (SCI-Expanded)

- XXVII. **On disconjugacy and stability criteria for discrete Hamiltonian systems**
Mert R., Zafer A.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.62, no.8, pp.3015-3026, 2011 (SCI-Expanded)
- XXVIII. **A NECESSARY AND SUFFICIENT CONDITION FOR OSCILLATION OF SECOND ORDER SUBLINEAR DELAY DYNAMIC EQUATIONS**
Mert R., Zafer A.
DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS, vol.31, pp.1061-1067, 2011 (SCI-Expanded)
- XXIX. **SECOND ORDER OSCILLATION OF MIXED NONLINEAR DYNAMIC EQUATIONS WITH SEVERAL POSITIVE AND NEGATIVE COEFFICIENTS**
ÖZBEKLER A., Zafer A.
DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS, vol.31, pp.1167-1175, 2011 (SCI-Expanded)
- XXX. **Forced oscillation of second-order nonlinear differential equations with positive and negative coefficients**
ÖZBEKLER A., Wong J. S. W., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.24, no.7, pp.1225-1230, 2011 (SCI-Expanded)
- XXXI. **Annulus criteria for mixed nonlinear elliptic differential equations**
ŞAHİNER Y., Zafer A.
MATHEMATICAL AND COMPUTER MODELLING, vol.53, pp.1856-1864, 2011 (SCI-Expanded)
- XXXII. **Oscillation of solutions of second order mixed nonlinear differential equations under impulsive perturbations**
ÖZBEKLER A., Zafer A.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.61, no.4, pp.933-940, 2011 (SCI-Expanded)
- XXXIII. **Time scale extensions of a theorem of Wintner on systems with asymptotic equilibrium**
Mert R., Zafer A.
JOURNAL OF DIFFERENCE EQUATIONS AND APPLICATIONS, vol.17, no.5, pp.841-857, 2011 (SCI-Expanded)
- XXXIV. **On Stability of Linear Delay Differential Equations under Perron's Condition**
Diblik J., Zafer A.
ABSTRACT AND APPLIED ANALYSIS, 2011 (SCI-Expanded)
- XXXV. **Oscillation of Second-Order Sublinear Impulsive Differential Equations**
Zafer A.
ABSTRACT AND APPLIED ANALYSIS, 2011 (SCI-Expanded)
- XXXVI. **MIXED NONLINEAR OSCILLATION OF SECOND ORDER FORCED DYNAMIC EQUATIONS**
GÜVENİLİR A. F., Sahiner Y., Zafer A.
DYNAMIC SYSTEMS AND APPLICATIONS, vol.19, pp.635-649, 2010 (SCI-Expanded)
- XXXVII. **Oscillation criteria for third-order nonlinear functional differential equations**
AKTAŞ M. F., Tiriyaki A., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.23, no.7, pp.756-762, 2010 (SCI-Expanded)
- XXXVIII. **Principal and nonprincipal solutions of impulsive differential equations with applications**
ÖZBEKLER A., Zafer A.
APPLIED MATHEMATICS AND COMPUTATION, vol.216, no.4, pp.1158-1168, 2010 (SCI-Expanded)
- XXXIX. **Interval oscillation criteria for second-order forced delay dynamic equations with mixed nonlinearities**
Agarwal R. P., Anderson D. R., Zafer A.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.59, no.2, pp.977-993, 2010 (SCI-Expanded)
- XL. **PICONE TYPE FORMULA FOR NON-SELFADJOINT IMPULSIVE DIFFERENTIAL EQUATIONS WITH DISCONTINUOUS SOLUTIONS**
ÖZBEKLER A., Zafer A.
ELECTRONIC JOURNAL OF QUALITATIVE THEORY OF DIFFERENTIAL EQUATIONS, no.35, pp.1-12, 2010 (SCI-Expanded)
- XLI. **Recent Trends in Differential and Difference Equations**
Zafer A., Berezhansky L., Diblik J.

- ADVANCES IN DIFFERENCE EQUATIONS, 2010 (SCI-Expanded)
- XLII. **Interval criteria for second-order super-half-linear functional dynamic equations with delay and advance arguments**
Anderson D. R., Zafer A.
JOURNAL OF DIFFERENCE EQUATIONS AND APPLICATIONS, vol.16, no.8, pp.917-930, 2010 (SCI-Expanded)
- XLIII. **Oscillation of Second-Order Mixed-Nonlinear Delay Dynamic Equations**
Unal M., Zafer A.
ADVANCES IN DIFFERENCE EQUATIONS, 2010 (SCI-Expanded)
- XLIV. **A Survey on Oscillation of Impulsive Ordinary Differential Equations**
Agarwal R. P., KARAKOÇ F., Zafer A.
ADVANCES IN DIFFERENCE EQUATIONS, 2010 (SCI-Expanded)
- XLV. **Integral criteria for oscillation of third order nonlinear differential equations**
AKTAŞ M. F., Tiryaki A., Zafer A.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.71, no.12, 2009 (SCI-Expanded)
- XLVI. **Nonlinear oscillation of second-order dynamic equations on time scales**
Anderson D. R., Zafer A.
APPLIED MATHEMATICS LETTERS, vol.22, no.10, pp.1591-1597, 2009 (SCI-Expanded)
- XLVII. **Interval oscillation criteria for second order super-half linear functional differential equations with delay and advanced arguments**
Zafer A.
MATHEMATISCHE NACHRICHTEN, vol.282, no.9, pp.1334-1341, 2009 (SCI-Expanded)
- XLVIII. **Interval criteria for the forced oscillation of super-half-linear differential equations under impulse effects**
ÖZBEKLER A., Zafer A.
MATHEMATICAL AND COMPUTER MODELLING, vol.50, pp.59-65, 2009 (SCI-Expanded)
- XLIX. **On oscillation and nonoscillation of second-order dynamic equations**
Zafer A.
APPLIED MATHEMATICS LETTERS, vol.22, no.1, pp.136-141, 2009 (SCI-Expanded)
- L. **Oscillation Criteria for Second-Order Forced Dynamic Equations with Mixed Nonlinearities**
Agarwal R. P., Zafer A.
ADVANCES IN DIFFERENCE EQUATIONS, 2009 (SCI-Expanded)
- LI. **Calculating the matrix exponential of a constant matrix on time scales**
Zafer A.
APPLIED MATHEMATICS LETTERS, vol.21, no.6, pp.612-616, 2008 (SCI-Expanded)
- LII. **Stability criterion for second order linear impulsive differential equations with periodic coefficients**
Guseinov G. S., Zafer A.
MATHEMATISCHE NACHRICHTEN, vol.281, no.9, pp.1273-1282, 2008 (SCI-Expanded)
- LIII. **Stability criteria for linear periodic impulsive Hamiltonian systems**
Guseinov G. S., Zafer A.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.335, no.2, pp.1195-1206, 2007 (SCI-Expanded)
- LIV. **Asymptotic equivalence of differential equations and asymptotically almost periodic solutions**
Akhmet M. U., Tleubergenova M. A., Zafer A.
NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.67, no.6, pp.1870-1877, 2007 (SCI-Expanded)
- LV. **Forced oscillation of super-half-linear impulsive differential equations**
Oezbekler A., Zafer A.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.54, no.6, pp.785-792, 2007 (SCI-Expanded)
- LVI. **Oscillation of higher-order neutral-type periodic differential equations with distributed arguments**
Dahiya R. S., Zafer A.
JOURNAL OF INEQUALITIES AND APPLICATIONS, 2007 (SCI-Expanded)
- LVII. **Langenhop's inequality and applications for dynamic equations**
Kaymakçalan B., Zafer A.

- ELECTRONIC TRANSACTIONS ON NUMERICAL ANALYSIS, vol.27, pp.71-77, 2007 (SCI-Expanded)
- LVIII. **Perron's theorem for linear impulsive differential equations with distributed delay**
 Akhmet M. U., Alzabut J., Zafer A.
 JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.193, no.1, pp.204-218, 2006 (SCI-Expanded)
- LIX. **Picone's formula for linear non-selfadjoint impulsive differential equations**
 Ozbekler A., Zafer A.
 JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.319, no.2, pp.410-423, 2006 (SCI-Expanded)
- LX. **The exponential of a constant matrix on time scales**
 Zafer A.
 ANZIAM JOURNAL, vol.48, pp.99-106, 2006 (SCI-Expanded)
- LXI. **Second-order oscillation of forced functional differential equations with oscillatory potentials**
 Guvenilir A. F., Zafer A.
 COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.51, pp.1395-1404, 2006 (SCI-Expanded)
- LXII. **Sturmian comparison theory for linear and half-linear impulsive differential equations**
 Ozbekler A., ZAFER A.
 NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.63, 2005 (SCI-Expanded)
- LXIII. **Interval oscillation of a general class of second-order nonlinear differential equations with nonlinear damping**
 Tiryaki A., Zafer A.
 NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.60, no.1, pp.49-63, 2005 (SCI-Expanded)
- LXIV. **Controllability of two-point nonlinear boundary-value problems by the numerical-analytic method**
 Akhmet M., Zafer A.
 APPLIED MATHEMATICS AND COMPUTATION, vol.151, no.3, pp.729-744, 2004 (SCI-Expanded)
- LXV. **Oscillation of second-order nonlinear differential equations with nonlinear damping**
 Tiryaki A., Zafer A.
 MATHEMATICAL AND COMPUTER MODELLING, vol.39, pp.197-208, 2004 (SCI-Expanded)
- LXVI. **The control of boundary value problems for quasilinear impulsive integro-differential equations**
 Akhmetov M., Zafer A., Sejilova R.
 NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.48, no.2, pp.271-286, 2002 (SCI-Expanded)
- LXVII. **Bounded oscillation of nonlinear neutral differential equations of arbitrary order**
 Yilmaz Y., Zafer A.
 CZECHOSLOVAK MATHEMATICAL JOURNAL, vol.51, no.1, pp.185-195, 2001 (SCI-Expanded)
- LXVIII. **Stability of the zero solution of impulsive differential equations by the Lyapunov second method**
 Akhmetov M., Zafer A.
 JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.248, no.1, pp.69-82, 2000 (SCI-Expanded)
- LXIX. **Successive approximation method for quasilinear impulsive differential equations with control**
 Akhmetov M., Zafer A.
 APPLIED MATHEMATICS LETTERS, vol.13, no.5, pp.99-105, 2000 (SCI-Expanded)
- LXX. **The controllability of boundary-value problems for quasilinear impulsive systems**
 Akhmetov M., Zafer A.
 NONLINEAR ANALYSIS-THEORY METHODS & APPLICATIONS, vol.34, no.7, pp.1055-1065, 1998 (SCI-Expanded)
- LXXI. **Two-sided eigenvalue bounds for the spherically symmetric states of the Schrodinger equation**
 Zafer A., Taseli H.
 JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.95, pp.83-100, 1998 (SCI-Expanded)
- LXXII. **Oscillation criteria for even order neutral differential equations**
 Zafer A.
 APPLIED MATHEMATICS LETTERS, vol.11, no.3, pp.21-25, 1998 (SCI-Expanded)
- LXXIII. **Necessary and sufficient condition for oscillation of higher order nonlinear delay difference equations**
 Zafer A.
 COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.35, no.10, pp.125-130, 1998 (SCI-Expanded)

- LXXIV. **Asymptotic behavior and oscillation in higher order nonlinear differential equations with retarded arguments**
Dahiya R., Zafer A.
ACTA MATHEMATICA HUNGARICA, vol.76, no.3, pp.257-266, 1997 (SCI-Expanded)
- LXXV. **Bessel basis with applications: N-dimensional isotropic polynomial oscillators**
Taseli H., Zafer A.
INTERNATIONAL JOURNAL OF QUANTUM CHEMISTRY, vol.63, no.5, pp.935-947, 1997 (SCI-Expanded)
- LXXVI. **A Fourier-Bessel expansion for solving radial Schrodinger equation in two dimensions**
Taseli H., Zafer A.
INTERNATIONAL JOURNAL OF QUANTUM CHEMISTRY, vol.61, no.5, pp.759-768, 1997 (SCI-Expanded)

Articles Published in Other Journals

- I. **On periodic solutions of linear impulsive delay differential systems**
AKHMET M., Alzabut J., Zafer A.
Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis, vol.15, no.5, pp.621-631, 2008 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **A Fixed Point Approach to Singular Impulsive Boundary Value Problems**
Akgol S. D., Zafer A.
International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 19 - 25 September 2016, vol.1863
- II. **Forced Oscillation of Second-Order Impulsive Differential Equations with Mixed Nonlinearities**
ÖZBEKLER A., ZAFER A.
International Conference on Differential and Difference Equations and Applications, Ponta-Delgada, Portugal, 4 - 08 July 2011, vol.47, pp.183-195
- III. **Oscillation of higher order neutral type difference equations**
Zafer A.
2nd International Conference on Difference Equations, Veszprem, Hungary, 7 - 11 August 1995, pp.641-647

Supported Projects

ZAFER A., Project Supported by Higher Education Institutions, İmpuls İçeren Diferansiyel Denklemlerin Kalitatif İncelenmesi, 2011 - 2011

ZAFER A., Project Supported by Higher Education Institutions, İkinci Mertebeden Diferansiyel Denklemlerin Zaman Skalası Üzerinde Kalitatif İncelenmesi, 2009 - 2009

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