

Assoc. Prof. KOSTYANTYN ZHELTUKHIN

Personal Information

Email: zheltukh@metu.edu.tr

Web: <https://avesis.metu.edu.tr/zheltukh>

Research Areas

Natural Sciences

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 2017 - Continues

Assistant Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 2004 - 2017

Lecturer PhD, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Mathematics, 2002 - 2004

Courses

Discrete Mathematics, Undergraduate, 2020 - 2021

Partial Differential Equations, Undergraduate, 2019 - 2020, 2020 - 2021

Special Functions of Applied Mathematics, Undergraduate, 2019 - 2020, 2020 - 2021

Applied Mathematics II, Undergraduate, 2018 - 2019, 2019 - 2020

Calculus of Functions of Several Variables, Undergraduate, 2018 - 2019

Lebesgue Integral, Undergraduate, 2019 - 2020

Advising Theses

ZHELTUKHIN K., On some classes of semi-discrete Darboux integrable equations, Doctorate, E.BİLEN(Student), 2017

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **On the discretization of Darboux Integrable Systems**
ZHELTUKHIN K., ZHELTUKHINA N.
JOURNAL OF NONLINEAR MATHEMATICAL PHYSICS, vol.27, no.4, pp.616-632, 2020 (Journal Indexed in SCI)
- II. **Nonlocal hydrodynamic type of equations**
Gürses M., Pekcan A., Zheltukhin K.
COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.85, 2020 (Journal Indexed in SCI)
- III. **Discrete symmetries and nonlocal reductions**
GÜRSES M., Pekcan A., ZHELTUKHIN K.
PHYSICS LETTERS A, vol.384, no.3, 2020 (Journal Indexed in SCI)
- IV. **On the discretization of Laine equations**
ZHELTUKHIN K., ZHELTUKHINA N.

- JOURNAL OF NONLINEAR MATHEMATICAL PHYSICS, vol.25, no.1, pp.166-177, 2018 (Journal Indexed in SCI)
- V. **On a class of Darboux-integrable semidiscrete equations**
 ZHELTUKHIN K., ZHELTUKHINA N., Bilen E.
 ADVANCES IN DIFFERENCE EQUATIONS, 2017 (Journal Indexed in SCI)
- VI. **Semi-discrete hyperbolic equations admitting five dimensional characteristic x-ring**
 ZHELTUKHIN K., ZHELTUKHINA N.
 JOURNAL OF NONLINEAR MATHEMATICAL PHYSICS, vol.23, no.3, pp.351-367, 2016 (Journal Indexed in SCI)
- VII. **Cartan matrices and integrable lattice Toda field equations**
 Habibullin I., ZHELTUKHIN K., Yangubaeva M.
 JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL, vol.44, no.46, 2011 (Journal Indexed in SCI)
- VIII. **Dynamical systems and Poisson structures**
 Guerses M., Guseinov G. S., ZHELTUKHIN K.
 JOURNAL OF MATHEMATICAL PHYSICS, vol.50, no.11, 2009 (Journal Indexed in SCI)
- IX. **Bi-presymplectic chains of co-rank 1 and related Liouville integrable systems**
 Blaszak M., Guerses M., ZHELTUKHIN K.
 JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL, vol.42, no.28, 2009 (Journal Indexed in SCI)
- X. **Hydrodynamic type integrable equations on a segment and a half-line**
 Guerses M., Habibullin I., ZHELTUKHIN K.
 JOURNAL OF MATHEMATICAL PHYSICS, vol.49, no.10, 2008 (Journal Indexed in SCI)
- XI. **Integrable boundary value problems for elliptic type Toda lattice in a disk**
 Guerses M., Habibullin I., ZHELTUKHIN K.
 JOURNAL OF MATHEMATICAL PHYSICS, vol.48, no.10, 2007 (Journal Indexed in SCI)
- XII. **On a transformation between hierarchies of integrable equations**
 GÜRSES M., ZHELTUKHIN K.
 PHYSICS LETTERS A, vol.351, pp.37-40, 2006 (Journal Indexed in SCI)
- XIII. **Hamiltonian equations in R-3**
 Ay A., GÜRSES M., ZHELTUKHIN K.
 JOURNAL OF MATHEMATICAL PHYSICS, vol.44, no.12, pp.5688-5705, 2003 (Journal Indexed in SCI)
- XIV. **Recursion operator and dispersionless rational Lax representation**
 ZHELTUKHIN K.
 Physics Letters A, vol.297, pp.402-407, 2002 (Journal Indexed in SCI Expanded)
- XV. **Some remarks on vector-valued integration.**
 Kadets V., Shumyatskiy B., Shvidkoy R., ZHELTUKHIN K., Tseytlin L.
 Journal of Mathematical Physics, Analysis, Geometry, 2002 (Journal Indexed in SCI Expanded)
- XVI. **On the integrability of a class of Monge-Ampere equations**
 BRUNELLI J. C., GÜRSES M., ZHELTUKHIN K.
 REVIEWS IN MATHEMATICAL PHYSICS, vol.13, no.4, pp.529-543, 2001 (Journal Indexed in SCI)
- XVII. **Recursion operators of some equations of hydrodynamic type**
 GÜRSES M., ZHELTUKHIN K.
 JOURNAL OF MATHEMATICAL PHYSICS, vol.42, no.3, pp.1309-1325, 2001 (Journal Indexed in SCI)
- XVIII. **Some Remrks on Vector Measures Duality**
 ZHELTUKHIN K., Kadets V.
 QUAESTIONES MATHEMATICAE, 2000 (Journal Indexed in SCI Expanded)
- XIX. **A vector-valued measure as a basis of a Banach space.**
 ZHELTUKHIN K., Kadets V.
 Journal of Mathematical Physics, Analysis, Geometry, 1998 (Journal Indexed in SCI Expanded)

Articles Published in Other Journals

- I. **ON DISCRETIZATION OF DARBOUX INTEGRABLE SYSTEMS ADMITTING SECOND-ORDER INTEGRALS**

Zheltukhin K, Zheltukhina N.

UFA MATHEMATICAL JOURNAL, vol.13, no.2, pp.170-186, 2021 (Journal Indexed in ESCI)

II. Recursion operator for a system with non-rational Lax representation

ZHELTUKHIN K.

Ufa Mathematical Journal, vol.8, no.2, pp.112-118, 2016 (Refereed Journals of Other Institutions)

III. A Banach space generated by the upper Darboux integral.

ZHELTUKHIN K.

Matematichnī Studii, 1992 (Journal Indexed in ESCI)

Refereed Congress / Symposium Publications in Proceedings

I. On existence of an x -integral for a semi-discrete chain of hyperbolic type

ZHELTUKHIN K., ZHELTUKHINA N.

23rd International Conference on Integrable Systems and Quantum Symmetries (ISQS), Prague, Czech Republic, 23

- 27 June 2015, vol.670

Citations

Total Citations (WOS):106

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