

Curriculum Vitae

ASLI PEKCAN

EDUCATION

Visiting Researcher.	Ufa Institute of Mathematics, Russian Academy of Science, Ufa, Rusya, 2011
Post. Doc.	İ. D. Bilkent University, Ankara, Turkey, 2010 Supervisor: Prof. Metin Gürses
Post. Doc.	University of South Florida, Tampa, Florida, US, 2010 Advisor: Prof. Wen-Xiu Ma
Ph.D., Mathematics.	İ. D. Bilkent University, Ankara, Turkey, 2009 Thesis: “Characteristic Lie Algebra and Classification of Semi-Discrete Models” Supervisor: Prof. Metin Gürses Co-supervisor: Prof. Ismagil Habibullin
M.S., Mathematics.	İ. D. Bilkent University, Ankara, Turkey, 2005 Thesis: “Introduction to the Hirota Bilinear Method and Its Applications” Supervisor: Prof. Metin Gürses
B.S., Mathematics.	İ. D. Bilkent University, Turkey, 2003

EMPLOYMENT

Jul 2014-	Hacettepe University, Department of Mathematics, Assistant Professor
Jun 2011-Jul 2014	İstanbul University, Department of Mathematics, Assistant Professor
Feb 2011-Jun 2011	İ. D. Bilkent University, Instructor
Sep 2009-Feb 2010	İ. D. Bilkent University, Instructor

SCIENTIFIC/ACADEMIC HONORS

- ÜAK Doçentlik (2014)
- International Postdoctoral Fellowship, TUBITAK (2009)
- Orhan Alisbah Reward, İ. D. Bilkent University (2007)
- Full scholarship, İ. D. Bilkent University (2003 – 2009)
- Full scholarship, İ. D. Bilkent University (1999 – 2003)

TEACHING EXPERIENCE

- *Instructor:*
 - ◊ Statistics for Lawyers (2009-2010 Fall)
 - ◊ Statistics for Lawyers (2010-2011 Spring)
 - ◊ Statistics for Social Sciences (2010-2011 Spring)
 - ◊ Analiz III (2011-2012-2013 Fall)
 - ◊ Diferansiyel Denklemler I (2011-2012-2013 Fall)
 - ◊ Diferansiyel Denklemler II (2011-2012-2013 Spring)
 - ◊ Kısmi Diferansiyel Denklemler (2011-2012-2013 Spring)
 - ◊ Matematik I (2014-...-2017 Fall)
 - ◊ Matematik II (2014-...-2017 Spring)
 - ◊ Engineering Mathematics I (2014-...-2019 Fall)
 - ◊ Engineering Mathematics II (2014-...-2019 Spring)
 - ◊ Kısmi Diferansiyel Denklemler (2016-2017 Spring)
 - ◊ Diferansiyel Denklemler (2017-2018 Fall)
 - ◊ Soliton teorisine giriş(M.Sc.) (2017-2018 Fall)

- *Teaching Assistant:*
 - ◊ Introduction to Calculus I
 - ◊ Introduction to Calculus II
 - ◊ Calculus I
 - ◊ Calculus II
 - ◊ Linear Algebra and Differential Equations
 - ◊ Partial Differential Equations

RESEARCH INTERESTS

- Integrable Systems, Soliton Theory

PUBLICATIONS

- M. Gürses, A. Pekcan, and K. Zheltukhin, *Discrete Symmetries and Nonlocal Reductions*, submitted. arXiv:1906.10871 [nlin.SI].
- M. Gürses, A. Pekcan, and K. Zheltukhin, *Nonlocal Hydrodynamic Type of Equations*, submitted. arXiv:1906.08475 [nlin.SI].
- M. Gürses, A. Pekcan, *Superposition of the Coupled NLS and MKdV Systems*, Appl. Math. Lett., 98, 157-163 (2019).
- A. Pekcan, *Nonlocal Coupled HI-MKdV Systems*, Comm. Nonlinear Sci. Numer. Simul., 72, 493-515 (2019).
- M. Gürses, A. Pekcan, *(2+1)-Dimensional Local and Nonlocal Reductions of the Negative AKNS System: Soliton Solutions*, Comm. Nonlinear Sci. Numer. Simul., 71, 161-173 (2019).
- M. Gürses, A. Pekcan, *Nonlocal Modified KdV Equations and Their Soliton Solutions*, Comm. Nonlinear Sci. Numer. Simul., 67, 427-448 (2019).
- M. Gürses, A. Pekcan, Integrable Nonlocal Reductions, "Symmetries, Differential Equations and Applications SDEA-III, Istanbul, Turkey, August 2017", Editors: Kac, V.G., Olver, P.J., Winternitz, P., and Ozer T., Springer Proceedings in Mathematics and Statistics, No:266, pp: 27-52 (2018).
- M. Gürses, A. Pekcan, *Nonlocal Nonlinear Schrödinger Equations and Their Soliton Solutions*, J. Math. Phys., Vol.59,051501 (2018).
- M. Gürses, A. Pekcan, *Traveling Wave Solutions of Degenerate Coupled Multi-KdV Equations*, J. Math. Phys., 57, 103507 (2016).
- M. Gürses, A. Pekcan, *Traveling Wave Equations of Degenerate Coupled KdV Equation*, J. Math. Phys., 55, 091501 (2014).
- M. N. Kuznetsova, A. Pekcan, A. V. Zhiber, *The Klein-Gordon Equation and Differential Substitutions of the Form $v = \phi(u, u_x, u_y)$* , SIGMA 8, 090 (2012).
- M. Gürses, A. Pekcan, *2+1 KdV(N) Equations*, J. Math. Phys., 52, 083516 (2011).
- W. Ma, A. Pekcan, *Uniqueness of the Kadomtsev-Petviashvili and Boussinesq equations*, Zeitschrift für Naturforschung A, 66a, 377-382 (2011).
- I. Habibullin, N. Zheltukhina, A. Pekcan, *Complete List of Darboux Integrable Chains of the Form $t_{1x} = t_x + d(t, t_1)$* , J. Math. Phys., 50, 102710 (2009).
- A. Pekcan *Solutions of the Extended Kadomtsev-Petviashvili-Boussinesq Equation by the Hirota Direct Method*, J. Nonlinear Math. Phys., 16, Issue:2, 127-139 (2009).
- I. Habibullin, N. Zheltukhina, A. Pekcan, *On the classification of Darboux integrable chains*, J. Math. Phys., 49, Issue: 10, 102702 (2008).
- I. Habibullin, A. Pekcan, N. Zheltukhina, *On Some Algebraic Properties of Semi-Discrete Hyperbolic Type Equations*, Turkish J. Math., 32, 1-17 (2008).
- I. Habibullin, A. Pekcan, *Characteristic Lie Algebra and Classification of Semi-Discrete Models*, Theoret. Math. Phys., 151, no. 3, 781-790 (2007).

PROJECTS

- TUBITAK project " New Approaches to Symmetry Analysis of Nonlinear Models in Mathematical Physics", No: 209T062 (completed)

SUPERVISED THESIS

- Nurdan Kar, Master Thesis, "Lineer Olmayan Kısmi Diferansiyel Denklemlerin Bäcklund Dönüşümleri", 2018.

CO-SUPERVISED THESIS

- Duygu Soyoğlu, Ph.D. Thesis, co-supervisor with Assoc. Prof. Burcu Silindir Yantır, İzmir Economy University, "Solitons and Their Extensions on q-discrete Equations", 2017.

GRADUATE THESIS COMMITTEE - MEMBERSHIP

- Tuba Ceylan, Ph.D. Thesis, "Relativistic Burgers equation on FLRW spacetimes", Supervisor: Assist. Prof. Baver Okutmuşur, METU, Ankara, Turkey, 2015.
- Ergün Bilen, Ph.D. Thesis, "On Some Classes of Semi-Discrete Darboux Integrable Equations", Supervisor: Assoc. Prof. Kostyantyn Zheltukhin, METU, Ankara, Turkey, 2017.
- Eda Yılmaz, Master Thesis, "The Compressible Euler System and Its Numerical Analysis", Supervisor: Assist. Prof. Baver Okutmuşur, METU, Ankara, Turkey, 2019.
- Tuğcan Adem Özdemir, Master Thesis, "Parameter Estimation for Merton Jump Diffusion Models", Supervisor: Assist. Prof. Ceren Vardar Acar, METU, Ankara, Turkey, 2019.

EDITORIAL BOARDS

- Turkish J. Math., 2014-2015
- Hacettepe Journal of Mathematics and Statistics, Associate Editor, 2018-

REFeree WORK

- Zeitschrift für Naturforschung
- Applied Mathematics Letters
- Reports on Mathematical Physics
- Hacettepe Journal of Mathematics and Statistics
- Süleyman Demirel University Faculty of Arts and Science Journal of Science

ADMINISTRATIVE/ORGANIZATIONAL EXPERIENCE

- The 7th International Workshop on Differential Equations and Applications, Aydın, Turkey, 2015, Member of the Organizing Committee.
- The 9th International Workshop on Differential Equations and Applications, İstanbul, Turkey, 2019, Member of the Organizing Committee.

CONFERENCE and SEMINAR TALKS

- November 2002, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: The Hirota Method
- May 2003, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: 3 Soliton Solutions

- June 2004, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: Hirota's Bilinear Method I: The Method
- July 2004, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: Hirota's Bilinear Method II: Applications
- July 2004, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: Hirota's Bilinear Method III: Applications
- January 2006, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: Hirota Method for Some Non-integrable Equations
- January 2006, Cankaya University, Ankara, Turkey
Ankara Mathematics Days: PDE VI
Talk: The Hirota Direct Method for Some Non-integrable Equations
- February 2007, METU, Ankara, Turkey
Workshop on Differential Equations and Applications
Talk: Solutions of the Extended Kadomtsev-Petviashvili-Boussinesq Equation by the Hirota Direct Method
- May 2007, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: On Some Algebraic Properties of Semi-Discrete Hyperbolic Type Equations
- August 2007, METU, Ankara, Turkey
VI. ISAAC Congress
Talk: Solutions of the Extended Kadomtsev-Petviashvili-Boussinesq Equation by the Hirota Direct Method
- February 2008, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: Characteristic Lie Algebra and Classification of Semi-Discrete Models
- April 2008, Pamukkale University, Denizli, Turkey
Workshop on Differential Equations and Applications II
Talk: On Some Algebraic Properties of Semi-Discrete Hyperbolic Type Equations
- April 2009, Sakarya University, Adapazarı, Turkey
Workshop on Differential Equations and Applications III
Talk: On Some Algebraic Properties of Semi-Discrete Hyperbolic Type Equations
- April 2010, University of South Florida, Tampa, Florida, US
Talk: On Some Algebraic Properties of Semi-Discrete Hyperbolic Type Equations
- April 2010, University of South Florida, Tampa, Florida, US
Talk: Solutions of the Extended Kadomtsev-Petviashvili-Boussinesq Equation by the Hirota Direct Method
- October 2010, İ. D. Bilkent University, Ankara, Turkey
Applied Mathematics Group: Thursday Seminars
Talk: Uniqueness of the Kadomtsev-Petviashvili and Boussinesq equations
- November 2010, Boğaziçi University, İstanbul, Turkey
Talk: On Darboux Integrability of semi-discrete hyperbolic type equations
- August 2011, Ufa Institute of Mathematics, Russian Academy of Science, Ufa, Russia
Talk: 2+1 KdV(N) Equations
- September 2011, İzmir Economics University, İzmir, Turkey
Workshop on Differential Equations and Applications V
Talk: 2+1 KdV(N) Equations

- October 2012, İstanbul University, Turkey
İstanbul University Department of Physics Seminar
Talk: Genelleştirilmiş Kadomtsev-Petviashvili-Boussinesq Denkleminin Hirota Metodu ile Çözümleri
- September 2013, İzmir Economics University, İzmir, Turkey
Workshop on Differential Equations and Applications VI
Talk: Traveling Wave Solutions of Degenerate Coupled KdV Equation
- June 2015, Yaşar University, İzmir, Turkey
The 7th International Workshop on Differential Equations and Applications
Talk: Degenerate Coupled Multi-KdV Equations
- May 2016, III. Kadın Matematikçiler Çalıştayı, İzmir, Turkey
Talk: Traveling Wave Solutions of Degenerate Coupled Multi-KdV Equations
- June 2019, Dokuz Eylül University and Yeditepe University, İstanbul, Turkey
The 9th International Workshop on Differential Equations and Applications
Talk: Nonlocal Coupled HI-MKdV System for $N = 4$