SEZGİN ALTAY DEMİRBAĞ
AKADEMİK ÖZGEÇMİŞ
(10.05.2021)

Doğum Yeri ve Tarihi: Taşpınar, 29 Eylül 1967

İş Adresi: İ.T.Ü. Fen-Edebiyat Fakültesi, Matematik Bölümü, 34469, Maslak İstanbul

İletişim:

Telefon: (212) 285 3259
Faks   :   (212) 285 6386
e-posta :   saltay@itu.edu.tr

Eğitim ve Aldığı Dereceler:

Matematik Mühendisliği (1991)
İstanbul Teknik Üniversitesi, Matematik Mühendisliği Bölümü

Matematik Yüksek Mühendisliği (1994)
İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü

Matematik Doktorası (1999)
İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü.

Aldığı Burslar:

1998-1999 KOÇ Bursu (Matematik Bölüm Başkanlığı tarafından)

Görev aldığı komisyonlar:

Matematik Bölümü Çap komisyonu

Tezler ve Akademik Ünvanlar:

Yüksek Lisans Tezi	: Weyl Hiperyüzeylerinde Genelleştirilmiş Laguerre fonksiyonu, İ.T.Ü., 1994.
Doktora Tezi	: Weyl Uzaylarında Eşit-Eşlenik Eğri Çiftleri, İ.T.Ü., 1999.
Doçentlik	: YÖK tarafından Doçentliğe yükseltilme tarihi 14 Nisan 2006.
Profesörlük	: İTÜ Fen-Edebiyat Fakültesi Matematik Müh.Böl. Şubat 2012.

Görevler ve Kadro Ünvanları:

Araştırma Görevlisi (1991-1999)
İ.T.Ü, Matematik Mühendisliği Bölümü

Dr. Araştırma Görevlisi (1999-2000)
İ.T.Ü, Matematik Mühendisliği Bölümü

Öğretim Görevlisi Dr. (2000-2002)
İ.T.Ü, Matematik Mühendisliği Bölümü

Yrd. Doç.Dr. (2002-2009)
İ.T.Ü, Matematik Mühendisliği Bölümü

Doç.Dr. (2009-2012)
İ.T.Ü, Matematik Mühendisliği Bölümü

Prof.Dr. (2012-)
İ.T.Ü, Matematik Mühendisliği Bölümü

İdari Görevler:

2004-2005 Matematik Mühendisliği, Bölüm Başkan Yardımcılığı
2009-2014 Matematik Mühendisliği Bölümü Çift Anadal Program Koordinatör
2012-2014 Matematik Müh. Böl. Doktora Yeterlik Komitesi Başkanı

Tamamlanmış Lisansüstü Öğrenci Danışmanlığı:
Doktora Tezi, İ.T.Ü. Fen Bilimleri Enstitüsü, Sinem Güler
Doktora Tezi, İ.T.Ü. Fen Bilimleri Enstitüsü, Esra Şengelen (Eş Danışman)
Yüksek Lisans Tezi, İ.T.Ü. Fen Bilimleri Enstitüsü, Kaan Esin

İTÜ'de Verdiği Dersler

Diferansiyel Denklemler ve Differential Equations
Diferansiyel Geometri ve Differential Geometry
Theory of Surfaces
Matematik I ve Mathematics I
Matematik II ve Mathematics II
Matematik III ve Mathematics III
Matematik IV ve Mathematics IV

Vakıf Üniversitelerinde Verdiği Dersler

Calculus (Bahçeşehir Üniversitesi)
Calculus (Bilgi Üniversitesi)
Calculus I, Calculus II, Differential Equations, İşletme Matematiği I ve II (Doğuş Üniversitesi)

SEZGİN ALTAY DEMİRBAĞ
YAYIN LİSTESİ
(10.05.2021)

A. Uluslararası hakemli dergilerde yayınlanan makaleler

A1. Uysal S.A. ve **Altay S**., "Darboux Functions in a 3-dimensional Space of Weyl," *Bulletins For Appl.Math.(BAM)*, 1202, 53-58 (1996) (A3 SINIFI).

A2. **Altay S**. ve Uysal S.A., "Prolonged Laguerre Functions Relative to the Congruence λ in a Weyl Hypersurface," *J.Geom.*, 58, no.1-2, 1-6 (1997) (A3 SINIFI)**.**

A3. **Altay S.** ve Uysal S.A., "The equi-conjugate Pair of Curves Relative to The Congruence λ in a Weyl Hypersurface," *Bul.Stiint.Univ.Politech.Timisoara Ser.Mat.Fiz.*, 42(56), no.2, 24-29 (1997) (A3 SINIFI).

A4. **Altay S**. ve Uysal S.A., "Some Properties of The Equi-conjugate Pair of Curves of a Weyl Hypersurface," *Bul.Stiint.Univ.Politech.Timisoara Ser.Mat.Fiz.*, 43(57), no.2, 16-24 (1998) (A3 SINIFI).

A5. **Altay S**. ve Uysal S.A., "On The Nets of Equi-conjugate Pairs of Curves in a Weyl Hypersurface," *J.Geom.*, 68, no.1-2., 1-9 (2000) (A3 SINIFI).

A6. **Altay S**. ve Özen F., "Generalised Recurrent and Birecurrent Weyl Spaces," *Tensor(N.S)*, 62, no.2, 120-128 (2000) (A3 SINIFI).

A7. Özen F. ve **Altay S**., "On The Recurrent and Birecurrent Weyl Spaces," *Tensor(N.S)*, **62**, no.1-2, 141-149 (2000) (A3 SINIFI).

A8. **Altay S**. ve Özen F., "Special Networks in The Hypersurfaces of Generalised Recurrent and Birecurrent Weyl Spaces," J.Geom., 74, no.1-2., 29-37 (2002) (A3 SINIFI).

A9. Özen F. ve **Altay S**., "On Weakly and Pseudo Symmetric Riemannian Spaces," *Indian J.Pure Appl.Math.*, 33, no.10, 1477-1488 (2002) (A1 SINIFI, TUBİTAK C-SINIFI).

A10. Altay S., "Generalized Laguerre Function Relative to The Congruence (λ) in a Riemannian Hypersurface With Semi-symmetric Metric Connection," *Tensor(N.S.)*, **63**, no.1, 92-100 (2002) (A3 SINIFI).

A11. Özen F. ve **Altay S**., "On Weakly Concircular Symmetric Spaces," *Math.Pannonica*, **16/1**, 29-38 (2005) (A3 SINIFI).

A12. **Altay S**., "Some Applications on Weakly Pseudo-Symmetric Riemannian Manifolds", Differ.Geom. and Dyn.Sys.,7, 1-10 (2005) (A3 SINIFI).

A13. **Altay S**. ve Özen F., "Some Examples of Recurrent Riemannian Manifolds With Semi-symmetric Metric Connection," *Studia Sci.Math.Hungarica*, 44/1, 15-25 (2007) (A1 SINIFI, TÜBİTAK C-SINIFI).

A14. Ozen F., **Altay S**. and Uysal S.A. , "Darboux Function of a Hypersurface in a Riemannian Manifold with Semi-symmetric Metric Connection", *International Mathematical Forum*, 3, No.15, 739-749 (2008) (A3 SINIFI).

A15. Zengin Ozen F. and Demirbag **Altay S**., "On Weakly and Pseudo Concircular Symmetric Structures on a Riemannian Manifold", *Acta Universitatis Palackianae Olomucensis*, 47, 129-138 , (2008) (A3 SINIFI).

A16. Zengin Ozen F., Kaya M.O. and Demirbağ **Altay S**., "Applications of Parameter Expansion Methods to Nonlinear Oscillators with Discontinuities", *International Journal of Nonlinear Science and Numerical Simulation*, 9(3), 267-270, (2008) (TÜBİTAK A SINIFI) .

A17. Demirbağ Altay S., Kaya M.O and Zengin Ozen F., "Application of Modified He's Variational Method to Nonlinear Oscillators with Discontinuities", *International Journal of Nonlinear Science and Numerical Simulation,* 10(1), 103-107, (2009) (TÜBİTAK A SINIFI).

A18. Zengin Ozen F., Kaya M.O. and **Demirbağ Altay S.**, "Approximate Period Calculation for Some Strongly Nonlinear Oscillation by He's Parameter-Expanding Methods", *Nonlinear Analysi:Real World Applications*, 10, 2177-2182, (2009) (TÜBİTAK A SINIFI).

A19. Kaya M.O., **Demirbag Altay S**. and Zengin Ozen F., "Higher-Order Approximate Periodic Solutions of a Nonlinear Oscillator with Discontinuity by Variational Approach", *Mathematical Problems in Engineering,* 2009, Vol.2009 ,1-10, (TÜBİTAK C SINIFI).

A20. Kaya M.O. and **Demirbağ Altay S.**, "Application of Parameter Expansion Method to the Generalized Nonlinear Discontinuity Equation", Chaos, Solitons & Fractals, (2009) 42 (4) 1967-1973 (TÜBİTAK A SINIFI).

A21. S. Durmaz, **S. Altay Demirbağ**, M. O. Kaya, High order Hamiltonian approach to nonlinear oscillators, International Journal of Non-Linear Sciences and Numerical Simulation, 11 (8), 565-570, 2010 (TÜBİTAK A SINIFI).

A22. S, Altay Demirbağ, M. O. Kaya, Application of He's Max-Min approcah to a generalized nonlinear discontinuity equation, International Journal of Non-Linear Sciences and Numerical Simulation, 2010, 11 (4) 269-272, (TÜBİTAK A SINIFI).

A23. S. Durmaz, **S. Altay Demirbağ**, M. O. Kaya, High order He's energy balance method based on collocation method, International Journal of Non-Linear Sciences and Numerical Simulation, 11, 1-5, 2010 (TÜBİTAK A SINIFI).

A24. M. O. Kaya, S. Durmaz, **S. Altay Demirbağ**, He's Variational Approach to Multiple Coupled Nonlinear Oscillators, International Journal of Non-Linear Sciences and Numerical Simulation, 2010, 11 (10) 859-865, (TÜBİTAK A SINIFI).

A25. Zengin Ozen F., Uysal S.A. and **Demirbag Altay S.**, "On Sectional Curvature of a Riemannian Manifold with Semi-Symmetric Metric Connection, *Annales Polonici Mathematici,* 101, 131-138, 2011 (TÜBİTAK C SINIFI).

A26. S. Durmaz, **S. Altay Demirbağ**, Metin O. Kaya, Approximate Solutions for a Nonlinear Oscillator of a Mass Attached to a Stretched Elastic Wire, Computer and Mathematics with applications, 2011, 61, 578-585 (TÜBİTAK B SINIFI).

A27. F. Özen Zengin, **S. Altay Demirbağ**, S.A. Uysal, H. Bağdatlı Yılmaz, Some vector fields on a Riemannian manifold with semi-symmetric metric connection, Bull. Iranian Math. Soc. 2012, Vol.38(2),479-490 (TÜBİTAK C SINIFI).

A28. S. Durmaz, **S. Altay Demirbağ**, M. O. Kaya, Approximate solutions for nonlinear transverse vibrations of elastically restrained tapered beams, International Journal of Computer Mathematics, 2012,Vol.89 (7),901-915, (TÜBİTAK C SINIFI).

A29. Demirbağ Altay S., On Weakly Ricci Symmetric Manifolds Admitting Semi-Symmetric Metric Connection, *Hacettepe Journal of Mathematics and Statistics*, *Hacettepe Journal of Mathematics and Statistics* 2012,, (TÜBİTAK C SINIFI) .

A30. S. Durmaz, **S. Altay Demirbağ**, M. O. Kaya, Hamiltonian approah to multiple coupled non-linear oscillators, Acta Physica Polonica A ,Vol.121(1),47-49", 2012, (TÜBİTAK C SINIFI).

A31. Zengin Ozen F. and **Demirbag Altay S.**, On Ricci Tensor of Weakly Concircular Symmetric Riemannian Spaces, *Applied and Computational Mathematics,* 2013, (TÜBİTAK C SINIFI).

A32. Altay Demirbağ S., Generalized pseudo Ricci symmetric manifolds with semi-symmetric metric connection, *Kuwait Journal of Science*, vol.41 (3) 81-101,2014, (TÜBİTAK C SINIFI).

A 33. Güler S. and **Altay Demirbağ S.,** "Conformally Flat Special Generalized Quasi Einstein Spacetimes," *Tensor (N. S.)*, vol. 75, no. 1, pp. 61–71, 2014.

A 34. Güler S. and **Altay Demirbağ S.,** "On Some Classes of Generalized Quasi Einstein Manifolds", <u>Filomat</u>, 29(3), 443--456, 2015. (<u>DOI</u> 10.2298/<u>FIL1503443G</u>)

A 35. Güler S. and **Altay Demirbağ S.,** "On Ricci Symmetric Generalized Quasi Einstein Spacetimes," *Miskolc Mathematical Notes*, vol. 16, no. 2, pp. 853–868, 2015.

A 36. Güler S. and **Altay Demirbağ S.,** "A Study of Generalized Quasi Einstein <u>Spacetimes</u> with Applications in General Relativity", <u>Int</u>. J. <u>Theor</u>. Phys., 55(1), 548--562, 2016.(<u>DOI</u> 10.1007/<u>s10773</u>-015-2692-1)

A 37. Güler S. and **Altay Demirbağ S.,** "Riemannian Manifolds Satisfying Certain Conditions on Pseudo Projective Curvature Tensor," *Filomat*, vol. 30, no. 3, pp. 721–731, 2016.

A 38. Altay Demirbağ S., and Güler S.**.,**, "Rigidity of m rho -quasi Einstein Manifolds," *Mathematische Nachrichten*, vol. 290, no. 14–15, pp. 2100–2110, 2017.

A 39. Altay Demirbağ S., "ON ISOTROPIC RIEMANNIAN MANIFOLDS WITH ASEMI-SYMMETRIC NON-METRIC CONNECTION," *FACTA UNIVERSITATIS*, vol. 32, no. 4, pp. 515–525, 2017.

A 39, . Güler S. and **Altay Demirbağ S.,** , "ON WARPED PRODUCT MANIFOLDS SATISFYING RICCI HESSIAN CLASS TYPE EQUATIONS," *PUBLICATIONS DE L'INSTITUT MATHÉMATIQUE*, vol. 103, no. 117, pp. 69–75, 2018.

B. Uluslararası bilimsel toplantılarda sunulan bildiriler

Tam Metinli Bildiriler:

B1. Özen F. and **Altay S**., "On Totally Umbilical Hypersurface With Conharmonic Transformations," *Steps in Differential Geometry* (Debrecen 2000), 243-250, Ins.Math.Inform.Debrecen, 2001.

B2. Altay S. and Özen F., "Nets of Asymptotic Lines in a Riemannian Hypersurface With Non-symmetric Metric Connection," *Geometry, Integrability and Quantization* (Sts.Constantine and Elena, 2002), 127-134, Coral Press Sci.Publ., Sofia, 2003.

B3. Özen F. and **Altay S**., "Conformal Mappings and Special Networks of Weyl Spaces," *Geometry, Integrability and Quantization*(Sts.Constantine and Elena, 2002), 239-247, Coral Press Sci.Publ., Sofia, 2003.

B4. Özen F. and **Altay S**., "The Bianchi Identities in a Riemannian Manifold With Semi-symmetric Metric Connection," *Proceedings of the International Symposium on Analysis,Manifolds and Mechanics*, Calcutta, India, February 5-7, 30-35, 2003.

B5. Altay S. and Özen F., Uysal, S.A., "On The Generalised Codazzi Function in a Riemannian Hypersurface With Semi-symmetric Metric Connection*," Proceedings of the International Symposium on Analysis,Manifolds and Mechanics*, Calcutta, India, February 5-7, 37-44, 2003.

B6. Ozen F. and **Altay S**. , "Note on Circles of a special Riemannian manifold", *Symposium on the Differential Geometry of Submanifolds*, Valenciennes, France, July 2007, 89-94.

B7. Altay S. and Ozen F. , "On spheres in a Riemannian manifold with semi-symmetric metric connection", *Symposium on the Differential Geometry of Submanifolds*, Valenciennes, France, July 2007, 203-208.

Özler (Abstracts):

B8. Uysal S.A. and **Altay S.,** "Darboux Functions in a 3-Dimensional Space of Weyl," *Conference on Differential Geometry*, Budapest, July 27-30, 1996.

B9. Altay S. and Özen F., "Generalized Birecurrent Riemannian Manifold with Semi-symmetric Metric Connection", *International Workshop on Global Analysis*, Çankaya University, Ankara, Turkey, April 15-17, 2004.

B10. Özen F. and **Altay S**., "A semi-symmetric Metric Connection on a Weakly Symmetric Riemannian Manifold", *International Workshop on Global Analysis*, Çankaya University, Ankara, Turkey, April 15-17, 2004.

B11. Altay S. , "On a Ricci Tensor of Weakly Concircular Symmetric Spaces", *9th International Conference on Differential Geometry and Its Applications*, Prague, Czech Republic, August 30-September 3, 2004.

B12. Ozen F. and **Altay S**. , "Generalized Projective Recurrent and Generalized 3-Recurrent Riemannian Spaces", *9th International Conference on Differential Geometry and Its Applications*, Prague, Czech Republic, August 30-September 3, 2004.

B13. Altay S. and Ozen F. , "On Ricci Tensor of Weakly Ricci Symmetric Kahler Spaces", 2006 International Conference on Topology and Its Applications, Aegion, Greece, June 23-26, 2006.

B14. Altay S. , Sengelen E. and Ozen F. , "Some Applications of Infinitesimal Pseudo Homothetic Transformations", *2006 International Conference on Topology and Its Applications*, Aegion, Greece, June 23-26, 2006.

B15. Ozen F., Dinc E. and Altay S. , "On Conformally Flat Pseudo Symmetric Kahler Spaces", *2006 International Conference on Topology and Its Applications*, Aegion, Greece, June 23-26, 2006.

B16. Altay S. and Ozen F. , "On the Nets of Lines of Curvature in a Riemannian Hypersurface with Semi-Symmetric Metric Connection", *IV.International Geometry Symposium*, Zonguldak, Turkey, July 17-21, 2006.

B17. Ozen F. and **Altay S**. , "Some Special Examples of Recurrent Riemannian Manifold Having Semi-symmetric Non-metric Connection", *IV.International Geometry Symposium*, Zonguldak, Turkey, July 17-21, 2006.

B18. Sengelen E., Ozen F. and **Altay S.**, "Torse Forming Vector Field Generalized Pseudo Ricci Symmetric Space", *IV.International Geometry Symposium*, Zonguldak, Turkey, July 17-21, 2006.

B19. Dinc E., **Altay S** and Ozen F. , "Kahler Spaces with Recurrent H-Projective Curvature Tensor", *IV.International Geometry Symposium*, Zonguldak, Turkey, July 17-21, 2006.

B20. Güler, S., **Altay Demirbağ, S.,** INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELLING (ICAAMM 2013), On Conformally Flat Generalized Quasi Einstein Manifolds, Yıldız Technical Üniversity, İstanbul, 2013.

B21. Güler, S., **Altay Demirbağ, S.,** THE 13th INTERNATIONAL CONFERENCE OF TENSOR SOCIETY ON DIFFERENTIAL GEOMETRY AND ITS APPLICATIONS, AND INFORMATICS BESIDES, " Conformally Flat Special Generalized Quasi Einstein Spacetimes", Tensor Society, (Submitted), Romania, 2013.

B22. Güler, S., **Altay Demirbağ, S.,** XVIII. Geometrical Seminar, "On Some Classes of Generalized Quasi Einstein Manifolds" (Submitted), Serbia, 2014.

B23. Güler S. and **Altay Demirbağ S**., "Riemannian Manifolds Satisfying Certain Conditions On Pseudo-Projective Curvature Tensor", INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PURE AND APPLIED MATHEMATICS (ICRAPAM), Istanbul,   2015.

B.24. Güler S. and **Altay Demirbağ S.,** "Hyper-Generalized Quasi Einstein Manifolds Satisfying Certain Ricci Conditions", INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING (ICAAMM), Istanbul, 2015.

B.25. Güler S. and **Altay Demirbağ S.,** "Some Results on Special Warped Product Manifolds," presented at the 13. Geometri Sempozyumu , 2015.

B.26. Güler S. and **Altay Demirbağ S.,** "On Warped Product Manifolds Satisfying Ricci Hessian ClassType Equations," presented at the XIX. Geometrical Seminar , 2016.

B.27. Güler S. and **Altay Demirbağ S.,** "A Note on Warped Product Manifolds With Certain CurvatureConditions," presented at the 14th International Geometry Symposium , 2016.

B.28. Güler S. and **Altay Demirbağ S.,** "Some Characterizations of Generalized Ricci Solitons," presented at the Differential Geometry , 2018.

E. Ulusal bilimsel toplantılarda sunulan ve basılan bildiriler

E1. **Altay S.** ve Uysal S.A., " Weyl uzaylarında Eşit-eşlenik Eğri Çiftleri," X. Ulusal Matematik Sempozyumu, Abant İzzet Baysal Üniversitesi, 10-14, 1997.

E2. Yılmaz Bağdatlı H, **Altay Demirbağ S.**, Özen Zengin F. ve Uysal S.A., " A Note on Some Vector Fields on a Riemannian Manifold With a Special Type of Semi-Symmetric Metric Connection," VIII. Geometri Sempozyumu, Akdeniz Üniversitesi, 53, 29 Nisan-02 Mayıs 2010.

E3. Yılmaz Bağdatlı H, **Altay Demirbağ S.**, Özen Zengin F. ve Uysal S.A., " A study of semi-symmetric metric connection with a special condition on a Riemannian manifold," VIII. Geometri Sempozyumu, Akdeniz Üniversitesi, 62, 29 Nisan-02 Mayıs 2010.

E4. **Altay Demirbağ S.** ve Özen Zengin F., " On Ricci tensor of weakly concircular symmetric Riemannian spaces," VIII. Geometri Sempozyumu, Akdeniz Üniversitesi, 70, 29 Nisan-02 Mayıs 2010.

E5. **Altay Demirbağ, S.** ve Taştan, I, "Genelleştirilmiş karışık quasi-sabit eğrilikli Riemann manifoldlarının hiper yüzeyleri", 6. Ankara Matematik Günleri (AMG-2011), Hacettepe Üniversitesi, Ankara-Türkiye, 2-3 Haziran 2011.

E6. Güler, S., **Altay Demirbağ, S.,** 7. Ankara Matematik Günleri (AMG-2012), Genelleştirilmiş Yarı-Einstein Manifoldların Bazı Özellikleri, Ankara Universitesi (özet kitapçığında basıldı), 2012.

E7. Güler, S., **Altay Demirbağ, S.,** "Some Results on Special Warped Product Manifolds", 13. Geometri Sempozyumu, Yıldız Teknik Üniversitesi, İstanbul, 2015.

Projeler:

1. Güler, S., **Altay Demirbağ, S.,** "Özel Yarı-Einstein Manifoldları", Proje No: 38385, Proje tipi: Doktora Tezleri Projeleri (BAP), Başlangıç Tarihi: 15 Aralık 2014, Bitiş Tarihi: 15 Haziran 2017.

2. Özel Yarı Einstein Manifoldları SEZGİN ALTAY DEMİRBAĞ,SİNEM GÜLER İSTANBUL TEKNİK ÜNİVERSİTESİ Yükseköğretim Kurumları tarafından destekli bilimsel araştırma projesi 15.12.2014 -30.10.2018

3. **Ricci (Harmonic) Flow and Its Self-Similar Solutions**
SEZGİN ALTAY DEMİRBAĞ,SİNEM GÜLER
İSTANBUL TEKNİK ÜNİVERSİTESİ Yükseköğretim Kurumları tarafından destekli bilimsel araştırma Projesi,
26.02.2018 -28.02.2019 ,