

Assoc. Prof. BURHAN TİRYAKIOĞLU

Personal Information

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Address: Marmara Üniversitesi Fen Edebiyat Fakültesi Matematik Bölümü

International Researcher IDs

ScholarID: 2Grcm9cAAAAJ

ORCID: 0000-0003-1448-6147

Publons / Web Of Science ResearcherID: Q-9349-2017

ScopusID: 57070468900

Yoksis Researcher ID: 25978

Education Information

Doctorate, Gebze Technical University, Institute Of Science, Matematik (Dr), Turkey 2013 - 2018

Postgraduate, Gebze Yüksek Teknoloji Enstitüsü, Mühendislik Ve Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), Turkey 2010 - 2013

Undergraduate, Anadolu University, Faculty Of Business Administration (Open Education), İşletme Pr. (Açıköğretim), Turkey 2006 - 2010

Undergraduate, Gebze Yüksek Teknoloji Enstitüsü, Fen Fakültesi, Matematik Bölümü, Turkey 2005 - 2010

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, The effect of finite inner and outer linings on scattering from semi infinite pipes, Gebze Technical University, Faculty Of Basic Sciences , Department Of Mathematics, 2018

Postgraduate, Akışkanlı bir ortamda dış yüzeyi akustik yutucu malzemeyle kaplı yarı sonsuz silindirik bir borudan ses dalgalarının saçılımı, Gebze Yüksek Teknoloji Enstitüsü, Mühendislik Ve Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), 2013

Research Areas

Mathematics, Computer Science, Integral Equations, Numerical Analysis, Acoustics

Academic Titles / Tasks

Associate Professor, Marmara University, Faculty of Arts and Sciences, Mathematics, 2022 - Continues

Research Assistant PhD, Marmara University, Faculty of Arts and Sciences, Mathematics, 2018 - 2022

Research Assistant, Marmara University, Faculty of Arts and Sciences, Mathematics, 2011 - 2018

Academic and Administrative Experience

Fakülte Yönetim Kurulu Üyesi, Marmara University, Faculty Of Sciences, Department Of Mathematics, 2024 - Continues
Deputy Head of Department, Marmara University, Faculty of Arts and Sciences, Mathematics, 2022 - Continues

Courses

Topluma Hizmet Uygulamaları, Undergraduate, 2022 - 2023
Bilgisayar Uygulamaları III, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020
Diferansiyel Denklemler, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022
Bilgisayar Uygulamaları IV, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019
İntegral Denklemler, Undergraduate, 2022 - 2023
Matematik Tarihi, Undergraduate, 2022 - 2023
Seminer, Postgraduate, 2023 - 2024, 2022 - 2023
Nümerik Analize Giriş, Undergraduate, 2023 - 2024, 2021 - 2022
Nümerik Analiz, Undergraduate, 2021 - 2022
Sayısal Çözümleme, Undergraduate, 2020 - 2021
Analiz I, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012
Analiz II, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013
Analiz IV, Undergraduate, 2017 - 2018
Analiz III, Undergraduate, 2017 - 2018
Matematik II, Undergraduate, 2014 - 2015

Jury Memberships

Doctoral Examination, Doctoral Examination, Gebze Teknik Üniversitesi, January, 2024
Post Graduate, Post Graduate, Gebze Teknik Üniversitesi, August, 2023
Doctoral Examination, Doctoral Examination, Gebze Teknik Üniversitesi, June, 2023
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Marmara Üniversitesi, April, 2023
Doctorate, Doctorate, Gebze Teknik Üniversitesi, October, 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A mode-matching analysis of flexible shells and waveguides with partitioning and muffler conditions**
Nawaz R., Yaseen A., Alahmadi H., TİRYAKİOĞLU B.
International Journal of Mechanics and Materials in Design, 2024 (SCI-Expanded)
- II. **Interactions of (m,n) and (m+1,n) modes with real eigenvalues: A dynamic transition approach**
Şengül M. T., Tiryakioğlu B.
Communications in Nonlinear Science and Numerical Simulation, vol.127, 2023 (SCI-Expanded)
- III. **TWO APPROACHES TO INSTABILITY ANALYSIS OF THE VISCOUS BURGERS' EQUATION**
Efendiev M., Sengul T., TİRYAKİOĞLU B.
DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS-SERIES S, 2023 (SCI-Expanded)
- IV. **Mode-Matching Analysis for Sound Propagation in a Cylindrical Duct with a Partial Lining**
TİRYAKİOĞLU B., Ozturk H.
Acoustical Physics, vol.69, no.4, pp.436-441, 2023 (SCI-Expanded)
- V. **Dynamic transitions and bifurcations of 1D reaction-diffusion equations: The non-self-adjoint case**

ŞENGÜL M. T., TİRYAKİOĞLU B.

Journal of Mathematical Analysis and Applications, vol.523, no.1, 2023 (SCI-Expanded)

- VI. **Transmission Loss Analysis in an Infinite Tube with Multiple Discontinuities**
TİRYAKİOĞLU B.
Acoustical Physics, vol.69, no.3, pp.303-308, 2023 (SCI-Expanded)
- VII. **Acoustic wave radiation from a coaxial pipe with partial lining and inner perforated screen**
Tiryakioglu A., TİRYAKİOĞLU B.
International Journal of Aeroacoustics, vol.22, no.3-4, pp.278-292, 2023 (SCI-Expanded)
- VIII. **Analysis of sound transmission loss in an infinite duct with three different finite linings**
TİRYAKİOĞLU B.
International Journal of Modern Physics B, 2023 (SCI-Expanded)
- IX. **Diffraction of Sound Waves from Cavity with Inner Lining and Wall Thickness**
TİRYAKİOĞLU B.
ACTA PHYSICA POLONICA A, vol.141, no.6, pp.602-607, 2022 (SCI-Expanded)
- X. **Radiation of sound by a coaxial waveguide with semi-infinite perforated duct**
TİRYAKİOĞLU B.
WAVES IN RANDOM AND COMPLEX MEDIA, vol.32, no.2, pp.529-540, 2022 (SCI-Expanded)
- XI. **Dynamic transitions and bifurcations of 1D reaction-diffusion equations: The self-adjoint case**
ŞENGÜL M. T., TİRYAKİOĞLU B.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.45, no.5, pp.2871-2892, 2022 (SCI-Expanded)
- XII. **Sound Radiation from Non-Uniformly Lined Duct with Partial Rigidity**
TİRYAKİOĞLU B.
COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS, vol.61, no.12, pp.2118-2128, 2021 (SCI-Expanded)
- XIII. **Radiation of sound waves from a coaxial duct with perforated screen**
TİRYAKİOĞLU B., Tiryakioglu A.
IMA Journal of Applied Mathematics (Institute of Mathematics and Its Applications), vol.86, no.4, pp.828-844, 2021 (SCI-Expanded)
- XIV. **Mode Matching Analysis of Sound Waves in an Infinite Pipe with Perforated Screen**
TİRYAKİOĞLU B.
ACOUSTICAL PHYSICS, vol.66, no.6, pp.580-586, 2020 (SCI-Expanded)
- XV. **Radiation of acoustic waves by a partially lined pipe with an interior perforated screen**
TİRYAKİOĞLU B.
JOURNAL OF ENGINEERING MATHEMATICS, vol.122, no.1, pp.17-29, 2020 (SCI-Expanded)
- XVI. **Diffraction of sound waves by a lined cylindrical cavity**
TİRYAKİOĞLU B.
INTERNATIONAL JOURNAL OF AEROACOUSTICS, vol.19, pp.38-56, 2020 (SCI-Expanded)
- XVII. **Radiation of Sound Waves by a Semi-Infinite Duct with Outer Lining and Perforated End**
TİRYAKİOĞLU B.
ARCHIVES OF ACOUSTICS, vol.45, no.1, pp.77-84, 2020 (SCI-Expanded)
- XVIII. **Radiation of Sound from a Coaxial Duct Formed by a Semi-Infinite Rigid Outer Cylinder and Infinite Inner Cylinder Having Different Linings**
Ozturk H., TİRYAKİOĞLU B.
ARCHIVES OF ACOUSTICS, vol.45, no.4, pp.655-662, 2020 (SCI-Expanded)
- XIX. **Sound Radiation from the Perforated End of a Lined Duct**
TİRYAKİOĞLU B.
ACTA ACUSTICA UNITED WITH ACUSTICA, vol.105, no.4, pp.591-599, 2019 (SCI-Expanded)
- XX. **Sound Wave Radiation from Partially Lined Duct**
TİRYAKİOĞLU B., DEMİR A.
ARCHIVES OF ACOUSTICS, vol.44, no.2, pp.239-249, 2019 (SCI-Expanded)
- XXI. **Radiation analysis of sound waves from semi-infinite coated pipe**

TİRYAKİOĞLU B., DEMİR A.

INTERNATIONAL JOURNAL OF AEROACOUSTICS, vol.18, no.1, pp.92-111, 2019 (SCI-Expanded)

XXII. ANALYSIS OF RING SOURCED DIFFRACTION WITH RIGID AND IMPEDANCE BOUNDARY CONDITION

TİRYAKİOĞLU B.

UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS, vol.81, no.4, pp.331-340, 2019 (SCI-Expanded)

Articles Published in Other Journals

- I. **Radiation of sound waves by semi-perforated duct**
TİRYAKİOĞLU B., ÖZTÜRK H.
JOURNAL OF INTERDISCIPLINARY MATHEMATICS, vol.25, no.8, pp.2289-2300, 2022 (ESCI)
- II. **The effect of semi perforated duct on ring sourced acoustic diffraction**
Tiryakioğlu B.
Communications Faculty of Sciences University of Ankara Series A1-Mathematics and Statistics, vol.70, no.2, pp.1073-1084, 2021 (ESCI)
- III. **Sound Wave Diffraction by a Cavity with Partial Lining**
TİRYAKİOĞLU B.
Mathematical Sciences and Applications E-Notes, vol.8, no.1, pp.123-133, 2020 (Peer-Reviewed Journal)
- IV. **A Note on Ring Source Over Semi-Infinite Rigid Pipe**
TİRYAKİOĞLU B.
International Journal of Advances in Engineering and Pure Sciences, vol.31, pp.133-139, 2019 (Peer-Reviewed Journal)
- V. **Wiener Hopf Analysis of Sound Waves by a Rigid Cylindrical Pipe with External Impedance Surface**
Tiryakioğlu B., Demir A.
International Journal of Mathematical Models and Methods in Applied Sciences, vol.9, pp.558-565, 2015 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Wiener-Hopf Analysis of Acoustic Waves from a Coaxial Pipe**
TİRYAKİOĞLU B., TİRYAKİOĞLU A.
4th International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2022), Ankara, Turkey, 14 - 16 December 2022
- II. **Analysis of Sound Waves in a Cavity with Lined and Perforated Screen**
TİRYAKİOĞLU B.
10th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2021), Sakarya, Turkey, 25 - 27 August 2021, pp.80
- III. **A Note on Ring Source Over Semi-Infinite Lined and Perforated Duct**
TİRYAKİOĞLU B.
9th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2020), Üsküp, Macedonia, 25 - 28 August 2020
- IV. **Mode Matching Technique for Analysis of Sound Wave in an Infinite Duct with Different Linings**
TİRYAKİOĞLU B.
3rd International E-Conference on Mathematical Advances and Applications, İstanbul, Turkey, 24 - 27 June 2020
- V. **Radiation of Sound Waves from Stepped and Lined Duct**
Tiryakioğlu A., Tiryakioğlu B.
8th International Conference on Engineering & Natural Sciences, Ankara, Turkey, 12 - 14 June 2020
- VI. **A Wiener-Hopf Analysis of the Rigid Pipe with Finite Perforated Part**

TİRYAKİOĞLU B.

3rd International Congress on Statistics Mathematics and Analytical Methods, İstanbul, Turkey, 12 - 13 March 2020

VII. Analysis of Sound Waves with Semi Perforated Pipe

TİRYAKİOĞLU B.

7th International Symposium on Innovative Technologies in Engineering and Science, Şanlıurfa, Turkey, Turkey, 22 - 24 November 2019

VIII. Diffraction of Sound Waves Emanating from a Ring Source with Lined Pipe

TİRYAKİOĞLU B.

Operators, Functions, and Systems of Mathematical Physics Conference, Baku, Azerbaijan, Azerbaijan, 21 - 24 May 2018

IX. Radiation of Sound Waves from a Semi-Infinite Rigid Duct by Local Outer Lining

TİRYAKİOĞLU B., DEMİR A.

5th International Symposium on Innovative Technologies in Engineering and Science, Azerbaijan, 29 - 30 September 2017

X. Diffraction of Acoustic Waves by a Semi-Infinite Pipe with Finite Impedance Discontinuity

TİRYAKİOĞLU B., DEMİR A.

4TH INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES IN ENGINEERING AND SCIENCE, Antalya, Turkey, Turkey, 3 - 05 November 2016, pp.150-159

XI. Analysis of Sound Diffraction from a Duct with Exterior Surface Impedance

TİRYAKİOĞLU B., DEMİR A.

4th International Eurasian Conference on Mathematical Science and Applications (IECMSA-2015), Athens, Greece, Greece, 31 August - 03 September 2015

XII. Sound Diffraction from a Semi Infinite Circular Cylindrical Duct with Outer Wall Impedance

Tiryakioğlu B., Demir A.

9th International Conference on Applied Mathematics, Simulation, Modelling (ASM 15), Konya, Turkey, Turkey, 20 - 22 May 2015

XIII. Scattering Matrices in a Lined Duct with Sudden Area Changes

DEMİR A., TİRYAKİOĞLU B.

9th International Conference on Applied Mathematics, Simulation, Modelling (ASM 15), Konya, Turkey, Turkey, 20 - 22 May 2015

XIV. Diffraction of Sound Waves from a Semi Infinite Circular Cylindrical Pipe with an Acoustically Absorbing External Surface

TİRYAKİOĞLU B., DEMİR A.

2nd International Eurasian Conference on Mathematical Science and Applications (IECMSA-2013), Sarajevo, Bosnia and Herzegovina, Bosnia And Herzegovina, 26 - 28 August 2013

Activities in Scientific Journals

Aeronautics and Aerospace Open Access Journal, Committee Member, 2023 - Continues

American Journal of Mechanics and Applications, Committee Member, 2023 - Continues

American Journal of Mechanics and Applications, Committee Member, 2020 - 2022

Scientific Refereeing

ZAMM ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK, SCI Journal, March 2024

INTERNATIONAL JOURNAL OF MECHANICS AND MATERIALS IN DESIGN, SCI Journal, January 2024

MATHEMATICAL METHODS IN THE APPLIED SCIENCES, SCI Journal, January 2024

COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, SCI Journal, January 2024

ZAMM ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK, SCI Journal, November 2023

HELIYON, SCI Journal, September 2023

Journal of Innovative Science and Engineering (JISE), National Scientific Refreed Journal, September 2023

ARCHIVES OF COMPUTATIONAL METHODS IN ENGINEERING, Journal Indexed in SCI-E, August 2023

PLOS ONE, SCI Journal, July 2023

INTERNATIONAL JOURNAL OF MODERN PHYSICS B, Journal Indexed in SCI-E, April 2023

ZAMM ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK, SCI Journal, October 2022

ARCHIVES OF ACOUSTICS, Journal Indexed in SCI-E, September 2022

Advances in Mechanical Engineering, Journal Indexed in SCI-E, March 2022

MATHEMATICAL SCIENCES AND APPLICATIONS E-NOTES, National Scientific Refreed Journal, November 2021

Conference Proceedings of Science and Technology, Other Indexed Journal, October 2021

ACOUSTICS AUSTRALIA, Journal Indexed in SCI-E, August 2021

ARCHIVES OF ACOUSTICS, Journal Indexed in SCI-E, June 2021

ACOUSTICS AUSTRALIA, Journal Indexed in SCI-E, March 2021

ARCHIVES OF ACOUSTICS, Journal Indexed in SCI-E, February 2021

SÜLEYMAN DEMİREL ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, National Scientific Refreed Journal, January 2021

International journal of advances in engineering and pure sciences (Online), National Scientific Refreed Journal, October 2020

Journal of Aerospace Engineering and Mechanics, Other Indexed Journal, October 2020

ADVANCES IN MECHANICAL ENGINEERING, Journal Indexed in SCI-E, April 2020

ARCHIVES OF ACOUSTICS, Journal Indexed in SCI-E, June 2019

Tasks In Event Organizations

Tiryakioğlu B., 14th International Conference on Applied Physics and Mathematics (ICAPM 2024), Scientific Congress, Taipei, Taiwan, Nisan 2024

Tiryakioğlu B., The 14th International Hybrid Conference on Science, Computing, Chemistry & Management (ICSCCM 2024), Scientific Congress, İstanbul, Turkey, Şubat 2024

Tiryakioğlu B., The 5th International Conference on Applied and Practical Sciences (ICAPS 2023), Scientific Congress, Kuala-Lumpur, Malaysia, Aralık 2023

Tiryakioğlu B., The 28th Asian Technology Conference in Mathematics (ATCM 2023), Scientific Congress, Pattani, Thailand, Aralık 2023

Tiryakioğlu B., 6th International Conference on Mathematics and Statistics (ICoMS 2023), Scientific Congress, Leipzig, Germany, Temmuz 2023

Tiryakioğlu B., The 13th International Hybrid Conference on Science, Computing, Chemistry & Management (ICSCCM 2023), Scientific Congress, İstanbul, Turkey, Temmuz 2023

Tiryakioğlu B., 10th International Congress on Fundamental and Applied Sciences 2023 (ICFAS 2023), Scientific Congress, İstanbul, Turkey, Haziran 2023

Tiryakioğlu B., The 7th International Conference on Computational Mathematics and Engineering Sciences (CMES 2023), Scientific Congress, Elazığ, Turkey, Mayıs 2023

Tiryakioğlu B., 6th International HYBRID Conference on Mathematical Advances and Applications (ICOMAA 2023), Scientific Congress, İstanbul, Turkey, Mayıs 2023

Tiryakioğlu B., 13th International Conference on Applied Physics and Mathematics (ICAPM 2023), Scientific Congress, Singapore, Singapore, Mart 2023

Tiryakioğlu B., 9th International Conference on Mathematics, Engineering, Natural & Medical Sciences, Scientific Congress, Marrakush, Morocco, Ocak 2020

Tiryakioğlu B., V. Marmara Matematik Günleri (MMG 2019), Scientific Congress, İstanbul, Turkey, Ekim 2019

Tiryakioğlu B., IV. Marmara Matematik Günleri (MMG 2018), Scientific Congress, İstanbul, Turkey, Eylül 2018

Tiryakioğlu B., Koç S., III. Marmara Matematik Günleri (MMG 2017), Scientific Congress, İstanbul, Turkey, Eylül 2017

Tiryakioğlu B., Koç S., International Conferernce on Applied Analysis and Mathematical Modelling (ICAAMM 2017),

Scientific Congress, İstanbul, Turkey, Temmuz 2017

Tiryakioğlu B., KOÇ S., II. Marmara Matematik Günleri (MMG 2016), Scientific Congress, İstanbul, Turkey, Ekim 2016

Tiryakioğlu B., I. Marmara Matematik Günleri (MMG 2014), Scientific Congress, İstanbul, Turkey, Eylül 2014

Metrics

Publication: 41

Citation (WoS): 30

Citation (Scopus): 65

H-Index (WoS): 4

H-Index (Scopus): 5

Scholarships

Doktora Bursu, TUBİTAK, 2013 - 2017

Yüksek Lisans Bursu, TUBİTAK, 2011 - 2013

Awards

Tiryakioğlu B., Uluslararası Bilimsel Yayın Teşvik Programı (UBYT), Tübitak, January 2024

Tiryakioğlu B., Uluslararası Bilimsel Yayın Teşvik Programı (UBYT), Tübitak, July 2023

Tiryakioğlu B., Uluslararası Bilimsel Yayın Teşvik Programı (UBYT), Tübitak, May 2023

Tiryakioğlu B., Uluslararası Bilimsel Yayın Teşvik Programı (UBYT) , Tübitak, December 2022

Tiryakioğlu B., Uluslararası Bilimsel Yayın Teşvik Programı (UBYT), Tübitak, October 2022

Tiryakioğlu B., Uluslararası Bilimsel Yayın Teşvik Programı (UBYT), Tübitak, November 2021

Tiryakioğlu B., Uluslararası Bilimsel Yayın Teşvik Programı (UBYT), Tübitak, August 2019

Tiryakioğlu B., İREZ O. S., Uluslararası Bilimsel Yayın Teşvik Programı, Tübitak, June 2019

Tiryakioğlu B., Bölüm Birinciliği, Gebze Teknik Üniversitesi, June 2010