

Prof. AYŞE KAŞKAŞ ÖZTEPE

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 1990 - 1998

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), Turkey 1987 - 1990

Undergraduate, Ankara University, Fen Fakültesi, Fizik Bölümü, Turkey 1981 - 1986

Foreign Languages

English, B2 Upper Intermediate

Italian, A2 Elementary

Dissertations

Doctorate, İzotropik ve anizotropik saçılma için FN ve yeni geliştirilen bir yöntemle uygulamalar, Ankara University, Fen Bilimleri Enstitüsü, Fizik (Dr), 1998

Postgraduate, Tek-boyutlu bir antiferromagnetik zincirde çekirdek spin-örgü durulma zamanının incelenmesi, Ankara University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), 1990

Research Areas

Nuclear physics

Academic Titles / Tasks

Professor, Ankara University, Fen Fakültesi, Fizik Bölümü, 2009 - Continues

Academic and Administrative Experience

Ankara University, 2014 - 2021

Ankara University, 2015 - 2020

Ankara University, 2008 - 2014

Courses

İstatistik Fizik, Undergraduate, 2022 - 2023
Elektrik ve Manyetizma, Undergraduate, 2018 - 2019, 2017 - 2018
NÜKLEER FİZİK, Postgraduate, 2017 - 2018, 2016 - 2017
MATEMATİKSEL FİZİK -II, Undergraduate, 2017 - 2018, 2011 - 2012, 2010 - 2011, 2009 - 2010
KUANTUM FİZİĞİ, Undergraduate, 2016 - 2017, 2013 - 2014, 2012 - 2013
Fizik-II, Undergraduate, 2016 - 2017
ELEKTRODİNAMİK-I, Postgraduate, 2015 - 2016
ELEKTRODİNAMİK-II, Postgraduate, 2015 - 2016
ELEKTROMANYETİK DALGALAR, Undergraduate, 2015 - 2016, 2013 - 2014
NÖTRON FİZİĞİ, Undergraduate, 2015 - 2016, 2010 - 2011, 2009 - 2010
FİZİK-I, Undergraduate, 2015 - 2016
MATEMATİKSEL FİZİK-I, Undergraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011
NÖTRON TRANSPORT TEORİ, Postgraduate, 2011 - 2012
NÜKLEER FİZİK , Undergraduate, 2011 - 2012, 2010 - 2011, 2009 - 2010

Advising Theses

KAŞKAŞ ÖZTEPE A., Kanserli dokulardaki bazı iz element derişimlerinin radyoterapide alınan doz üzerindeki etkisinin deneysel olarak ölçülmesi ve gate/GEANT4 programı ile modellenerek incelenmesi, Doctorate, T.SAHMARAN(Student), 2021
KAŞKAŞ ÖZTEPE A., Binalarda radon gazı konsantrasyonunun ölçümü, Postgraduate, B.TUĞBA(Student), 2019
KAŞKAŞ ÖZTEPE A., Applications of the radiative transfer problems on various scattering functions, Doctorate, M.BİÇER(Student), 2019
KAŞKAŞ ÖZTEPE A., Meme kanseri radyoterapisinde TLD ölçümleri ve plan verileri karşılaştırılarak solunum hareketlerinin cilt dozu üzerine etkisinin değerlendirilmesi, Postgraduate, D.ERGÜN(Student), 2018
KAŞKAŞ ÖZTEPE A., Tomoterapi cihazı ile tedavi edilen baş boyun kanserli hastaların cilt dozunun TLD ile dozimetrik olarak incelenmesi, Postgraduate, E.YILMAZ(Student), 2017
KAŞKAŞ ÖZTEPE A., Radyoterapide kullanılan karbon fiber masanın dozimetrik etkileri, Postgraduate, B.GERÇEK(Student), 2017
KAŞKAŞ ÖZTEPE A., Kozmik ışın kaynaklı nötronların akısı ve enerji dağılımı, Postgraduate, H.ERGİ(Student), 2014
KAŞKAŞ ÖZTEPE A., Nükleer reaksiyonlar sonucu açığa çıkan gamma ışınları ve nötronların germanyum detektör sistemi ile etkileşimleri, Doctorate, M.ŞENYİĞİT(Student), 2011
KAŞKAŞ ÖZTEPE A., Radyoterapide kullanılan koruyucu bloklar ile kurşun bilye ilaveli koruyucu blokların gama ışını geçirgenliklerinin karşılaştırılması, Postgraduate, N.YAVUZKANAT(Student), 2010
KAŞKAŞ ÖZTEPE A., HN yönteminin düzlem geometrideki polarizasyon problemlerine uygulanması, Postgraduate, M.KARAHASANOĞLU(Student), 2004

Published journal articles indexed by SCI, SSCI, and AHCI

- I. Search for ^{22}Na in novae supported by a novel method for measuring femtosecond nuclear lifetimes
Fougères C., De Oliveira Santos F., José J., Michelagnoli C., Clément E., Kim Y. H., Lemasson A., Guimarães V., Barrientos D., Bemmerer D., et al.
NATURE COMMUNICATIONS, vol.14, no.1, 2023 (SCI-Expanded)
- II. Comparison of h-BN material with metal implants in radiotherapy applications: Characterization and dose distribution measurements in LINAC
Bozkurt A., ÇAKAL G. Ö., KAYA KELEŞ Ş., KAŞKAŞ ÖZTEPE A.

Radiation Physics and Chemistry, vol.212, 2023 (SCI-Expanded)

- III. **Application on using the infinite medium vector Green's function for polarized radiation in a Rayleigh-scattering atmosphere**
Şenyiğit M., Kaşkaş Öztepe A.
METEOROLOGY AND ATMOSPHERIC PHYSICS, vol.135, no.2, 2023 (SCI-Expanded)
- IV. **Spectroscopic quadrupole moments in ^{124}Xe**
Clément E., Lemasson A., Rejmund M., Jacquot B., Ralet D., Michelagnoli C., Barrientos D., Bednarczyk P., Benzoni G., Boston A., et al.
PHYSICAL REVIEW C, vol.107, no.1, 2023 (SCI-Expanded)
- V. **Determination of the radiological properties of materials: A new approximation method for calculation of the mass attenuation coefficients**
KAŞKAŞ ÖZTEPE A., ŞAHMARAN T.
APPLIED RADIATION AND ISOTOPES, vol.187, 2022 (SCI-Expanded)
- VI. **The $(6+)$ isomer in ^{102}Sn revisited: Neutron and proton effective charges close to the double shell closure**
Grawe H., Straub K., Faestermann T., Górska M., Hinke C., Krücken R., Nowacki F., Böhmer M., Boutachkov P., Geissel H., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.820, 2021 (SCI-Expanded)
- VII. **Solving Half Space and Slab Albedo Problems with a New Approximation**
ŞENYİĞİT M., KAŞKAŞ ÖZTEPE A.
JOURNAL OF COMPUTATIONAL AND THEORETICAL TRANSPORT, vol.47, no.7, pp.599-613, 2018 (SCI-Expanded)
- VIII. **Solution of the radiative transfer equation for Rayleigh scattering using the infinite medium green's function**
Bicer M., Kaskas A.
Astrophysics and Space Science, vol.363, no.3, pp.1-8, 2018 (SCI-Expanded)
- IX. **Conceptual design of the early implementation of the NEutron Detector Array (NEDA) with AGATA**
Hueyuek T., Di Nitto A., Jaworski G., Gadea A., Valiente-Dobon J. J., Nyberg J., Palacz M., Soederstroem P., Jose Aliaga-Varea R., de Angelis G., et al.
EUROPEAN PHYSICAL JOURNAL A, vol.52, no.3, 2016 (SCI-Expanded)
- X. **Identification and rejection of scattered neutrons in AGATA**
ŞENYİĞİT M., Atac A., AKKOYUN S., Kaskas A., Bazzacco D., Nyberg J., Recchia F., Brambilla S., Camera F., Crespi F. C. L., et al.
Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, vol.735, pp.267-276, 2014 (SCI-Expanded)
- XI. **Global properties of K hindrance probed by the γ decay of the warm rotating ^{174}W nucleus**
Vandone V., Leoni S., Benzoni G., Blasi N., Bracco A., Brambilla S., Boiano C., Bottoni S., Camera F., Corsi A., et al.
Physical Review C - Nuclear Physics, vol.88, no.3, 2013 (SCI-Expanded)
- XII. **Influence of the np interaction on the β decay of ^{94}Pd**
Nara Singh B., Brock T., Wadsworth R., Grawe H., Boutachkov P., Braun N., Blazhev A., Liu Z., Górska M., Pietri S., et al.
Physical Review C - Nuclear Physics, vol.86, no.4, 2012 (SCI-Expanded)
- XIII. **Superallowed Gamow-Teller decay of the doubly magic nucleus ^{100}Sn**
Hinke C., Böhmer M., Boutachkov P., Faestermann T., Geissel H., Gerl J., Gernhäuser R., Górska M., Gottardo A., Grawe H., et al.
Nature, vol.486, no.7403, pp.341-345, 2012 (SCI-Expanded)
- XIV. **AGATA-Advanced GAMMA Tracking Array**
AKKOYUN S., Algora A., Alikhani B., Ameil F., De Angelis G., Arnold L., Astier A., Ataç A., Aubert Y., Aufranc C., et al.
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.668, pp.26-58, 2012 (SCI-Expanded)
- XV. **$16+$ spin-gap isomer in ^{96}Cd**
Nara Singh B., Liu Z., Wadsworth R., Grawe H., Brock T., Boutachkov P., Braun N., Blazhev A., Górska M., Pietri S., et

al.

Physical Review Letters, vol.107, no.17, 2011 (SCI-Expanded)

XVI. Observation of a new high-spin isomer in Pd94

Brock T., Nara Singh B., Boutachkov P., Braun N., Blazhev A., Liu Z., Wadsworth R., Górska M., Grawe H., Pietri S., et al.

Physical Review C - Nuclear Physics, vol.82, no.6, 2010 (SCI-Expanded)

XVII. An application of transport theory in optical oceanography: The Estimation of the apparent optical properties using Henyey-Greenstein phase function

Kaşkaş A., Tezcan C.

Transport Theory and Statistical Physics, vol.38, no.6, pp.317-329, 2009 (SCI-Expanded)

XVIII. Discrimination of gamma rays due to inelastic neutron scattering in AGATA

Atac A., Kaskas A., AKKOYUN S., ŞENYİĞİT M., Huyuk T., Kara S. O., Nyberg J.

Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, vol.607, no.3, pp.554-563, 2009 (SCI-Expanded)

XIX. Legendre polynomial series of the infinite medium Green's Function in neutral particle transport theory: The half-space albedo problem

GÜLEÇYÜZ M. Ç., Kaşkaş A.

Kerntechnik, vol.74, no.5-6, pp.315-319, 2009 (SCI-Expanded)

XX. The HN method for half-space Albedo and constant source problems for isotropic and anisotropic scattering kernels

Tezcan C., Gulecyuz M. Ç., Tureci R. G., Kaskas A.

Journal of Quantitative Spectroscopy and Radiative Transfer, vol.103, no.3, pp.611-619, 2007 (SCI-Expanded)

XXI. The effects of different expansions of the exit distribution on the extrapolation length for linearly anisotropic scattering

Bulut S., Gulecyuz M. Ç., Kaskas A., Tezcan C.

Kerntechnik, vol.72, no.1-2, pp.77-85, 2007 (SCI-Expanded)

XXII. The H N method for Milne problem with polarization

ŞENYİĞİT M., Kaskas A.

Astrophysics and Space Science, vol.310, no.1-2, pp.85-91, 2007 (SCI-Expanded)

XXIII. Analytic algorithms for determining radiative transfer optical properties of ocean waters

Kaskas A., Gulecyuz M. Ç., Tezcan C., McCormick N. J.

Applied Optics, vol.45, no.29, pp.7698-7705, 2006 (SCI-Expanded)

XXIV. An application of transport theory for optical oceanography: The isotropic point source

Kaskas A., Tezcan C., Gulecyuz M. Ç.

Journal of Optics A: Pure and Applied Optics, vol.8, no.8, pp.683-688, 2006 (SCI-Expanded)

XXV. Neutron transport problems for extremely anisotropic scattering

Kaskas A., Karahasanoglu M., Gulecyuz M. Ç.

Kerntechnik, vol.71, no.5-6, pp.290-296, 2006 (SCI-Expanded)

XXVI. The singular eigenfunction method: The critical slab problem for linearly anisotropic scattering

Türeci R., GÜLEÇYÜZ M. Ç., Kaşkaş A., Tezcan C.

Kerntechnik, vol.70, no.4, pp.230-232, 2005 (SCI-Expanded)

XXVII. The singular eigenfunction method: The critical slab problem for linearly anisotropic scattering

Tureci R., Gulecyuz M. Ç., Kaskas A., Tezcan C.

Kerntechnik, vol.70, no.5-6, pp.322-326, 2005 (SCI-Expanded)

XXVIII. Application of the HN method to the critical slab problem for reflecting boundary conditions

Tureci R., Gulecyuz M. Ç., Kaskas A., Tezcan C.

Journal of Quantitative Spectroscopy and Radiative Transfer, vol.88, no.4, pp.499-517, 2004 (SCI-Expanded)

XXIX. The HN method for solving linear transport equation: Theory and applications

Tezcan C., Kaskas A., Gulecyuz M. Ç.

Journal of Quantitative Spectroscopy and Radiative Transfer, vol.78, no.2, pp.243-254, 2003 (SCI-Expanded)

XXX. Radiation transfer in an inhomogeneous half-space

- Tezcan C., Kaskas A., Gulecyuz M. Ç.
Journal of Quantitative Spectroscopy and Radiative Transfer, vol.76, no.1, pp.107-115, 2003 (SCI-Expanded)
- XXXI. **Isotropic spherical source analysis for ocean optics**
McCormick N. J., Kaşkaş A.
Applied Optics, vol.39, no.27, pp.4902-4910, 2000 (SCI-Expanded)
- XXXII. **Slab albedo problem for anisotropic scattering using singular eigenfunction solution of the CN equations**
Gulecyuz M. Ç., Kaskas A., Tezcan C.
Journal of Quantitative Spectroscopy and Radiative Transfer, vol.61, no.3, pp.329-338, 1999 (SCI-Expanded)
- XXXIII. **The singular eigenfunction method: The Milne problem for isotropic and extremely anisotropic scattering**
Tezcan C., Kaskas A., Gulecyuz M. Ç.
Journal of Quantitative Spectroscopy and Radiative Transfer, vol.62, no.1, pp.49-57, 1999 (SCI-Expanded)
- XXXIV. **The Milne and the Constant Source Problems for the FBIS Kernel**
GÜLEÇYÜZ M. Ç., Kaşkaş A.
Turkish Journal of Physics, vol.22, no.6, pp.461-468, 1998 (SCI-Expanded)
- XXXV. **The FN method for anisotropic scattering in neutron transport theory: The half-space problems**
Kaskas A., Tezcan C.
Journal of Quantitative Spectroscopy and Radiative Transfer, vol.55, no.1, pp.41-46, 1996 (SCI-Expanded)

Articles Published in Other Journals

- I. **The Effect of the Trace Elements Concentrations on the Cancerous and Healthy Tissues in Radiotherapy**
ŞAHMARAN T., KAŞKAŞ A.
International Journal of Medical Physics, Clinical Engineering and Radiation Oncology, vol.9, no.03, pp.110-124, 2020 (Peer-Reviewed Journal)
- II. **Solution of the CN equations using singular eigenfunctions and applications**
Erdogan F., Gulecyuz M. Ç., Kaskas A., Tezcan C.
Annals of Nuclear Energy, vol.23, no.6, pp.533-541, 1996 (Scopus)
- III. **The slab albedo problem using singular eigenfunctions and the third form of the transport equation**
Kaskas A., Gulecyuz M. Ç., Tezcan C.
Annals of Nuclear Energy, vol.23, no.17, pp.1371-1379, 1996 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Investigation of Using h-BN Materials Having Different Diameters On Dose Distribution In Radiotherapy**
ÇAKAL G. Ö., Bozkurt A., KAYA KELEŞ Ş., KAŞKAŞ ÖZTEPE A.
International Boron Symposium- BORON2022, İstanbul, Turkey, 5 - 07 October 2022
- II. **Asymptotic properties of the radiation deep in an atmosphere**
ŞENYİĞİT M., KAŞKAŞ ÖZTEPE A.
International Centre for Heat and Mass Transfer CHT-21, Rio de Janeiro, Brazil, 15 - 19 August 2021
- III. **Dose measurement in radiotherapy using various thermoluminescence dosimeteres**
Bozkurt A., KAYA KELEŞ Ş., ÇAKAL G. Ö., KAŞKAŞ ÖZTEPE A.
Ninth International Conference on Radiationin Various Fieldsbof Research RAD-9, KARADAĞ, 14 - 18 June 2021
- IV. **Asymptotic properties of the radiation deep in an atmosphere**
ŞENYİĞİT M., Kaşkaş A.
8th International Symposium on Advances in Computational Heat Transfer, CHT 2021, Virtual, Online, 15 - 19

August 2021, pp.55-58

- V. **Preliminary Results: The Effects on Radiation Dose of Some Trace Elements Concentrations in Cancerous Tissues at Radiotherapy**
ŞAHMARAN T., KAŞKAŞ A.
Sixth International Conference On Radiation And Applications In Various Fields Of Research, Ohrid, Macedonia, 18 - 22 June 2018
- VI. **Calculation Of Diffusion Coefficients By Using The Infinite Medium Green's Function In The Spherical Geometry,**
BİÇER M., KAŞKAŞ A.
6th Conference On Computational Thermal Radiation In Participating Media, Cascais, Lisbon, Portugal, 11 - 13 April 2018
- VII. **Evaluation Of Skin Dose Changes Using Tld For Head And Neck Patients Treated With**
Yilmaz E., Ertan F., Akkas E., Dizman A., Hicsonmez A., Kaskas A.
37th Meeting of the European-Society-for-Radiotherapy-and-Oncology (ESTRO), Barcelona, Spain, 20 - 24 April 2018, vol.127
- VIII. **Calculation of the Diffusion Coefficient Using Infinite Medium Green's Function**
BİÇER M., KAŞKAŞ A.
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017
- IX. **The Solutions of Neutron Transport Equations Theory and Applications**
KAŞKAŞ A.
1. International Underground Resources and Energy Conference, Yozgat, Turkey, 6 - 08 October 2016, pp.20
- X. **Order-to-chaos transition in warm rotating ^{174}W nuclei**
Vandone V., Leoni S., Bracco A., Bottoni S., Camera F., Corsi A., Crespi F., Giaz A., Nicolini R., Benzoni G., et al.
International School of Physics "Enrico Fermi" on From the Big Bang to the Nucleosynthesis, Ravenna, Italy, 19 - 24 July 2010, vol.178, pp.427-430
- XI. **Study of the order-to-chaos transition in ^{174}W with the AGATA-demonstrator**
Vandone V., Leoni S., Assanelli D., Bottoni S., Bracco A., Camera F., Crespi F., Giaz A., Nicolini R., Pellegrini L., et al.
19th International School on Nuclear Physics, Neutron Physics and Applications, VARNA 2011, Varna, Bulgaria, 19 - 25 September 2011, vol.366
- XII. **Spin-gap isomer in ^{96}Cd**
Wadsworth R., Singh B. N., Liu Z., Grawe H., Brock T., Boutachkov P., Braun N., Blazhev A., Gorska M., Pietri S., et al.
Rutherford Centennial Conference on Nuclear Physics, Manchester, United Kingdom, 8 - 12 August 2011, vol.381
- XIII. **Exotic nuclear studies around and below $A=100$**
Nara Singh B., Wadsworth R., Boutachkov P., Blazhev A., Liu Z., Grawe H., Brock T., Braun N., Go M., Pietri S., et al.
4th International Conference on Proton Emitting Nuclei and Related Topics, PROCON2011, Bordeaux, France, 6 - 10 June 2011, vol.1409, pp.19-24
- XIV. **The neutron-gamma discrimination using ^{252}Cf source with four AGATA triple clusters,**
KAŞKAŞ ÖZTEPE A., ŞENYİĞİT M.
EGAN 2011, Padova, Italy, 2011., Padova, Italy, 27 June 2011

Supported Projects

Kaşkaş Öztepe A., Şenyiğit M., Other International Funding Programs, AGATA: Advanced GAMMA Tracking Array, 2008 - 2026

Kaşkaş Öztepe A., Project Supported by Higher Education Institutions, Yüksek Enerjili Fotonlarda Berilyum Oksit (BeO) Optik Uyarmalı Lüminesans (Osl) Dozimetre Kullanımının Monte Carlo Metodu İle Araştırılması, 2021 - 2022

Ataç Nyberg A., Kaşkaş Öztepe A., Şenyiğit M., TUBITAK Project, Gamma spektroskopisinde iz sürme tekniğinin geliştirilmesi ve AGATA Projesine aktif katılım, 2006 - 2009

Activities in Scientific Journals

Journal of Nuclear Sciences (JNS), Committee Member, 2020 - Continues

Metrics

Publication: 57

Citation (WoS): 566

Citation (Scopus): 826

H-Index (WoS): 11

H-Index (Scopus): 12