

Assoc. Prof. BAHADIR SAYGI

Personal Information

Email: bsaygi@ankara.edu.tr

Web: <https://avesis.ankara.edu.tr/bsaygi>

International Researcher IDs

ORCID: 0000-0001-5406-506X

Publons / Web Of Science ResearcherID: V-8743-2017

Yoksis Researcher ID: 234214

Education Information

Doctorate, University of Liverpool, England 2009 - 2014

Undergraduate, Gazi University, Gazi Eğitim Fakültesi, Turkey 2003 - 2008

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Anomalous B(E2) Ratios in the Neutron Deficient Nuclides 168-Os and 166-W, University of Liverpool, 2014

Research Areas

Nuclear physics

Academic Titles / Tasks

Associate Professor, Ankara University, Nükleer Bilimler Enstitüsü, Nükleer Araştırmalar ve Teknolojileri Anabilim Dalı, 2022 - Continues

Associate Professor, Ege University, 2020 - 2022

Research Assistant, Ege University, 2014 - 2020

Academic and Administrative Experience

Head of Department, Ankara University, Nükleer Bilimler Enstitüsü, Nükleer Araştırmalar ve Teknolojileri Anabilim Dalı, 2023 - Continues

Assistant Director of the Institute, Ankara University, Nükleer Bilimler Enstitüsü, Nükleer Araştırmalar ve Teknolojileri Anabilim Dalı, 2022 - 2023

Courses

Radiation Physics, Postgraduate, 2023 - 2024
İleri Nükleer Fizik, Doctorate, 2023 - 2024
Sayısal Hesaplama Teknikleri ve Uygulamaları I, Postgraduate, 2022 - 2023
Matlab ile Görüntü İşleme, Postgraduate, 2022 - 2023
NUMERICAL ANALYSIS TECHNIQUES AND APPLICATIONS I, Postgraduate, 2022 - 2023
Radiation Physics, Postgraduate, 2023 - 2024
MATLAB IMAGE PROCESSING, Postgraduate, 2022 - 2023
Bilimin Teknolojide Uygulamaları, Undergraduate, 2021 - 2022
Radyasyon Fiziği, Postgraduate, 2022 - 2023
Physics I, Undergraduate, 2021 - 2022
Nötron ve Reaktör Fiziğine Giriş, Postgraduate, 2022 - 2023
Physics II, Undergraduate, 2020 - 2021
Fizik II, Undergraduate, 2018 - 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Decay spectroscopy at the two-proton drip line: Radioactivity of the new nuclides 160Os and 156W**
Briscoe A., Page R., Uusitalo J., Joss D., AlAqeel M., Alayed B., Andel B., Antalic S., Auranen K., Ayatollahzadeh H., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.847, 2023 (SCI-Expanded)
- II. **New collective structures in ^{179}Au and their implications for the triaxial deformation of the ^{178}Pt core**
Balogh M., Jajcisinova E., Venhart M., Herzan A., Wood J. L., Joss D. T., Ali F. A., Auranen K., Banovska S., Birova M., et al.
PHYSICAL REVIEW C, vol.106, no.6, 2022 (SCI-Expanded)
- III. **Single-particle and collective excitations in the transitional nucleus Os-166**
Stolze S., Grahn T., Julin R., Joss D. T., Andgren K., Auranen K., Boenig S., Cox D., Darby I. G., Doncel M., et al.
JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS, vol.48, no.12, 2021 (SCI-Expanded)
- IV. **Lifetime measurements in the even-even Cd102-108 isotopes**
Siciliano M., Valiente-Dobon J. J., Goasduff A., Rodriguez T. R., Bazzacco D., Benzoni G., Braunroth T., Cieplicka-Orynczak N., Clement E., Crespi F. C. L., et al.
PHYSICAL REVIEW C, vol.104, no.3, 2021 (SCI-Expanded)
- V. **Octupole correlations near Te-110**
Testov D. A., Bakes S., Valiente-Dobon J. J., Goasduff A., Frauendorf S., Nowacki F., Rodriguez T. R., de Angelis G., Bazzacco D., Boiano C., et al.
PHYSICAL REVIEW C, vol.103, no.4, 2021 (SCI-Expanded)
- VI. **Lifetime measurements using a plunger device and the EUCLIDES Si array at the GALILEO gamma-ray spectrometer**
Bradbury J., Testov D., Bakes S., Goasduff A., Mengoni D., Valiente-Dobon J. J., de Angelis G., Bazzacco D., Boiano C., Boso A., et al.
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.979, 2020 (SCI-Expanded)
- VII. **Band structures, lifetimes, and shape coexistence in La-130**
Ionescu-Bujor M., Aydin S., Iordachescu A., Marginean N., Pascu S., Bucurescu D., Costache C., Florea N., Glodariu T., Ionescu A., et al.
PHYSICAL REVIEW C, vol.102, no.4, 2020 (SCI-Expanded)
- VIII. **High-spin states of Th-218**
O'Donnell D., Page R. D., Grahn T., Ali F. A., Auranen K., Capponi L., Carroll R. J., Chishti M. M. R., Drummond M. C., Greenlees P. T., et al.
JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS, vol.47, no.9, 2020 (SCI-Expanded)

- IX. **Pairing-quadrupole interplay in the neutron-deficient tin nuclei: First lifetime measurements of low-lying states in Sn-106,Sn-108**
 Siciliano M., Valiente-Dobon J. J., Goasduff A., Nowacki F., Zuker A. P., Bazzacco D., Lopez-Martens A., Clement E., Benzoni G., Braunroth T., et al.
 PHYSICS LETTERS B, vol.806, 2020 (SCI-Expanded)
- X. **Population of a low-spin positive-parity band from high-spin intruder states in Au-177: The two-state mixing effect**
 Venhart M., Balogh M., Herzan A., Wood J. L., Ali F. A., Joss D. T., Andreyev A. N., Auranen K., Carroll R. J., Drummond M. C., et al.
 PHYSICS LETTERS B, vol.806, 2020 (SCI-Expanded)
- XI. **Delayed or absent $\pi(h(11/2))(2)$ alignment in Xe-111**
 Capponi L., Smith J. F., Ruotsalainen P., Scholey C., Rahkila P., Bianco L., Boston A. J., Boston H. C., Cullen D. M., Derkx X., et al.
 PHYSICAL REVIEW C, vol.101, no.1, 2020 (SCI-Expanded)
- XII. **Lifetime measurements of excited states in W-163 and the implications for the anomalous B(E2) ratios in transitional nuclei**
 Lewis M. C., Joss D. T., SAYGI B., Page R. D., Cullen D. M., Barber L., Giles M. M., Simpson J., Al-Aqeel M. A. M., Badran H., et al.
 PHYSICS LETTERS B, vol.798, 2019 (SCI-Expanded)
- XIII. **NEDA-NEutron Detector Array**
 Valiente-Dobon J. J., Jaworski G., Goasduff A., Egea J., Modamio V., Huyuk T., Triossi A., Jastrzab M., Soderstrom P. A., Di Nitto A., et al.
 NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.927, pp.81-86, 2019 (SCI-Expanded)
- XIV. **Odd mass nuclei in the mass regions $100 \leq A \leq 130$ from a vertical perspective within the NpNn scheme**
 SAYGI B.
 NUCLEAR PHYSICS A, vol.983, pp.223-228, 2019 (SCI-Expanded)
- XV. **Symmetrical level schemes of the even-even Sm-A approximate to(130) and Yb-A(approximate to)160 nuclei up to 10(+) in the yrast bands**
 SAYGI B.
 NUCLEAR PHYSICS A, vol.980, pp.15-20, 2018 (SCI-Expanded)
- XVI. **Lifetime measurements in the chiral-candidate doublet bands of La-130**
 Ionescu-Bujor M., Aydin S., Marginean N., Costach C., Bucurescu D., Florea N., Glodariu T., Ionescu A., Iordachescu A., Marginean R., et al.
 PHYSICAL REVIEW C, vol.98, no.5, 2018 (SCI-Expanded)
- XVII. **Investigation of the B(E2) systematics in pseudo-mirror nuclei**
 SAYGI B.
 JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS, vol.45, no.9, 2018 (SCI-Expanded)
- XVIII. **Decay of a $19(-)$ isomeric state in Lu-156**
 Lewis M. C., Parr E., Page R. D., McPeake C., Joss D. T., Ali F. A., Auranen K., Briscoe A. D., Capponi L., Grahn T., et al.
 PHYSICAL REVIEW C, vol.98, no.2, 2018 (SCI-Expanded)
- XIX. **Reduced transition probabilities along the yrast line in W-166**
 Saygi B., Joss D. T., Page R. D., Grahn T., Simpson J., O'Donnell D., Alharshan G., Auranen K., Back T., Boening S., et al.
 PHYSICAL REVIEW C, vol.96, no.2, 2017 (SCI-Expanded)
- XX. **De-excitation of the strongly coupled band in Au-177 and implications for core intruder configurations in the light Hg isotopes**
 Venhart M., Ali F. A., Ryssens W., Wood J. L., Joss D. T., Andreyev A. N., Auranen K., Bally B., Balogh M., Bender M., et al.
 PHYSICAL REVIEW C, vol.95, no.6, 2017 (SCI-Expanded)
- XXI. **Lifetime measurements of excited states in W-162 and W-164 and the evolution of collectivity in**

rare-earth nuclei

Doncel M., Cederwall B., Qi C., Li H., Jakobsson U., Auranen K., Boenig S., Drummond M. C., Grahn T., Greenlees P. T., et al.

PHYSICAL REVIEW C, vol.95, no.4, 2017 (SCI-Expanded)

- XXII. **Excited states and reduced transition probabilities in Os-168**
Grahn T., Stolze S., Joss D. T., Page R. D., Saygi B., O'Donnell D., Akmali M., Andgren K., Bianco L., Cullen D. M., et al.
PHYSICAL REVIEW C, vol.94, no.4, 2016 (SCI-Expanded)
- XXIII. **Direct observation of the Ba-114 -> Xe-110 -> Te-106 -> Sn-102 triple alpha-decay chain using position and time correlations**
Capponi L., Smith J. F., Ruotsalainen P., Scholey C., Rakhila P., Auranen K., Bianco L., Boston A. J., Boston H. C., Cullen D. M., et al.
PHYSICAL REVIEW C, vol.94, no.2, 2016 (SCI-Expanded)
- XXIV. **Lifetime measurements in Re-166: Collective versus magnetic rotation**
Li H. J., Cederwall B., Doncel M., Peng J., Chen Q. B., Zhang S. Q., Zhao P. W., Meng J., Back T., Jakobsson U., et al.
PHYSICAL REVIEW C, vol.93, no.3, 2016 (SCI-Expanded)
- XXV. **Excited states in the proton-unbound nuclide Ta-158**
Carroll R. J., Page R. D., Joss D. T., O'Donnell D., Uusitalo J., Darby I. G., Andgren K., Auranen K., Boenig S., Cederwall B., et al.
PHYSICAL REVIEW C, vol.93, no.3, 2016 (SCI-Expanded)
- XXVI. **First identification of rotational band structures in Re-166(75)91**
Li H. J., Doncel M., Patial M., Cederwall B., Back T., Jakobsson U., Auranen K., Boenig S., Drummond M., Grahn T., et al.
PHYSICAL REVIEW C, vol.92, no.1, 2015 (SCI-Expanded)
- XXVII. **Recoil-decay tagging spectroscopy of W-162(74)88**
Li H. J., Cederwall B., Back T., Qi C., Doncel M., Jakobsson U., Auranen K., Boenig S., Drummond M. C., Grahn T., et al.
PHYSICAL REVIEW C, vol.92, no.1, 2015 (SCI-Expanded)
- XXVIII. **Collective excitations in the transitional nuclei Re-163 and Re-165**
Davis-Merry T. R., Joss D. T., Page R. D., Simpson J., Paul E. S., Ali F. A., Bianco L., Carroll R. J., Cederwall B., Darby I. G., et al.
PHYSICAL REVIEW C, vol.91, no.3, 2015 (SCI-Expanded)
- XXIX. **alpha decay of the pi h(11/2) isomer in Ir-164**
Drummond M. C., O'Donnell D., Page R. D., Joss D. T., Capponi L., Cox D. M., Darby I. G., Donosa L., Filmer F., Grahn T., et al.
PHYSICAL REVIEW C, vol.89, no.6, 2014 (SCI-Expanded)
- XXX. **Proton emission from an oblate nucleus Lu-151**
Procter M. G., Cullen D. M., Taylor M. J., Alharshan G. A., Ferreira L. S., Maglione E., Auranen K., Grahn T., Greenlees P. T., Jakobsson U., et al.
PHYSICS LETTERS B, vol.725, no.1-3, pp.79-84, 2013 (SCI-Expanded)
- XXXI. **Low-lying excited states in the neutron-deficient isotopes Os-163 and Os-165**
Drummond M. C., Joss D. T., Page R. D., Simpson J., O'Donnell D., Andgren K., Bianco L., Cederwall B., Darby I. G., Eeckhaudt S., et al.
PHYSICAL REVIEW C, vol.87, no.5, 2013 (SCI-Expanded)
- XXXII. **A new differentially pumped plunger device to measure excited-state lifetimes in proton emitting nuclei**
Taylor M. J., Cullen D. M., Smith A. J., McFarlane A., Twist V., Alharshan G. A., Procter M. G., Braunroth T., Dewald A., Ellinger E., et al.
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.707, pp.143-148, 2013 (SCI-Expanded)
- XXXIII. **Characterizing the atomic mass surface beyond the proton drip line via alpha-decay measurements of the pi s(1/2) ground state of Re-165 and the pi h(11/2) isomer in Ta-161**
Thornthwaite A., O'Donnell D., Page R. D., Joss D. T., Scholey C., Bianco L., Capponi L., Carroll R. J., Darby I. G., Donosa L., et al.

PHYSICAL REVIEW C, vol.86, no.6, 2012 (SCI-Expanded)

XXXIV. **First observation of excited states of Hg-173**

O'Donnell D., Page R. D., Scholey C., Bianco L., Capponi L., Carroll R. J., Darby I. G., Donosa L., Drummond M., Ertugral F., et al.

PHYSICAL REVIEW C, vol.85, no.5, 2012 (SCI-Expanded)

Books & Book Chapters

I. **DIJITALLEŞME, DIJITALLEŞTİRME, DIJITAL DÖNÜŞÜM KAVRAMLARI**

SAYGI B.

in: Kuramsal ve Uygulama Örnekleri ile Dijitalleşme ve Eğitim, DEMİRCİ SAYGI Nilüfer, DEMİR KAÇAN Sibel, Editor, EĞİTEN KİTAP YAYINCILIK ORG. LTD. ŞTİ, pp.2-16, 2022

Refereed Congress / Symposium Publications in Proceedings

I. **Chasing B(E2)_{4/2} anomaly**

Saygi B.

14th International Workshop on Nuclear Structure Properties, Konya, Turkey, 2 - 04 June 2021, pp.53

II. **Evolution of collectivity in 164W as a function of spin-quantum number**

SAYGI B.

XII. International Conference on Nuclear Structure Properties, 11 - 13 September 2019

III. **Prediction of Theoretical Models for Pseudo-Mirror Nuclei**

SAYGI B.

35th Turkish Physics Society, 4 - 08 September 2019

IV. **Nuclear Structure of Transitional Hf-W and Sm Nuclei using K130 Cyclotron and Tandem Accelerator**

SAYGI B.

7 th Internationally Participated Congress on Particle Accelerators and Applications, 2 - 03 September 2019

V. **The effect of neutron-proton interaction on the building of deformation beyond a major shell**

SAYGI B.

V. Uluslararası Multidisipliner Çalışmaları Kongresi, 2 - 03 November 2018, pp.32

VI. **Füzyon Buharlaştırma Reaksiyonları ve Yüklü Parçacık ve Nötron Algıçları**

SAYGI B.

V. Uluslararası Multidisipliner Çalışmaları Sempozyumu, Ankara, Turkey, 16 - 17 November 2018, pp.349

VII. **Economic Contribution and Impact of Universities: Physics Based Industry**

SAYGI B.

V. Uluslararası Multidisipliner Çalışmaları Kongresi, 2 - 03 November 2018, pp.27

VIII. **Nükleer Pil Teknolojisi ve Uygulama Alanları**

SAYGI B.

V. Uluslararası Multidisipliner Çalışmaları Sempozyumu, Ankara, Turkey, 16 - 17 November 2018, pp.416

IX. **B(E2) systematics for Pseudo Mirror Nuclei in the mass region ~100 and ~130**

SAYGI B., Ertürk S.

ICCESEN 2017, 4 - 08 October 2017

X. **Lifetime measurements and reduced B(E2) transition probabilities in the neutron-deficient Os and W nuclei**

SAYGI B., Joss D. T., Grahn T.

TFD, 6 - 10 September 2017

XI. **Using Concept Maps to Assess Pre-Service Physics Teachers in Impulse - Momentum and Comparing with the Achievement of Tests**

SAYGI B., Kandil İngeç S., Yeter K.

International Organization for Science and Technology Education, Kuşadası, Turkey, 01 September 2008

XII. Fen Bilgisi Öğretmen Adaylarının Cesitleme Yöntemiyle Isi Sıcaklık Tanımlamaları

SAYĞI B., Kandil İnceç S., Yeter K.

International Conference on Educational Sciences, Gazimagusa, Cyprus (Kktc), 01 June 2008

XIII. Evaluating the Concept Maps of Physics Teacher Candidates in Impulse Momentum and Comparing the Achievement of Tests

Kandil İnceç S., ÜNLÜ YAVAŞ P., SAYĞI B., Yeter K.

ESERA 2007, Malmö, Sweden, 22 July 2007

Supported Projects

Saygı B., Project Supported by Public Organizations in Other Countries, Lifetime measurement of excited states in ^{134}Sm , 2023 - 2023

Saygı B., Demirci Saygı N., TÜBİTAK Project, Parçacık-Boşluk Simetrisine Sahip Çekirdeklerde 1- Uyarılmış Seviye Özelliklerinin Araştırılması, 2022 - 2023

Saygı B., TÜBİTAK Project, Nötron Fakiri Tungsten Çekirdeklerinde Uyarılmış Seviyelerin $B(E2)$ Değerlerinin İncelenmesi, 2018 - 2020

Saygı B., TÜBİTAK Project, NEDA Dedektörlerinin İlk Prototiplerinin Oluşturulması ve Testleri - TÜBİTAK 2219

Kapsamında ve Istituto Nazionale di Fisica Nucleare - Laboratori Nazionali di Legnaro (INFN-LNL) bünyesinde, 2016 - 2017

Activities in Scientific Journals

Journal of Nuclear Sciences (JNS), Assistant Editor/Section Editor, 2022 - Continues

Sakarya Üniversitesi Fen Bilimleri Enstitüsü Dergisi, Editor, 2022 - Continues

Scientific Refereeing

JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS, SCI Journal, October 2021

Metrics

Publication: 49

Citation (WoS): 246

Citation (Scopus): 256

H-Index (WoS): 9

H-Index (Scopus): 9

Scholarships

1416 , Ministry of Education, 2009 - 2013