



SHMYO BÜLTEN



2026-MART

2026-MARCH



İstanbul Aydın Üniversitesi, Sağlık Hizmetleri Meslek Yüksekokulu
Istanbul Aydın University Vocational School of Health Services



İAÜ Sağlık Hizmetleri Meslek Yüksekokulu e-Bülteni VOCATIONAL SCHOOL OF HEALTH SERVICES E-BULLETIN

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İAÜ Sağlık Hizmetleri Meslek Yüksekokulu e-Bülteni

VOCATIONAL SCHOOL OF HEALTH SERVICES E-BULLETIN

PROGRAMLAR/PROGRAMS

- AĞIZ VE DİŞ SAĞLIĞI /ORAL AND DENTAL HEALTH
- AMELİYATHANE HİZMETLERİ/OPERATING ROOM SERVICES
- ANESTEZİ/ANESTHESIA
- DİŞ PROTEZ TEKNOLOJİSİ/DENTAL PROSTHESIS TECHNOLOGY
- DİYALİZ/DIALYSIS
- ECZANE HİZMETLERİ/PHARMACY SERVICES
- ELEKTRONÖROFİZYOLOJİ/ELECTRONEUROPHYSIOLOGY
- FİZYOTERAPİ/PHYSIOTHERAPY
- İLK VE ACİL YARDIM/FIRST AND EMERGENCY AID
- ODYOMETRİ/AUDIOMETRY
- OPTİSYENLİK/OPTICIANS
- ORTOPEDİK PROTEZ VE ORTEZ/ORTHOPEDIC PROSTHETICS AND ORTHOTICS
- PATOLOJİ LABORATUVAR TEKNİKLERİ/PATHOLOGY LABORATORY TECHNIQUES
- RADYOTERAPİ/RADIOTHERAPY
- SOSYAL HİZMETLER/SOCIAL SERVICES
- TIBBİ DOKUMANTASYON VE SEKRETERLİK/MEDICAL DOCUMENTATION AND SECRETARIAL
- TIBBİ GÖRÜNTÜLEME TEKNİKLERİ/MEDICAL IMAGING TECHNIQUES
- TIBBİ LABORATUVAR TEKNİKLERİ/MEDICAL LABORATORY TECHNIQUES

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SHMYO Haber

VSHS Newsletter

Sağlık Hizmetleri Meslek Yüksekokulu'nda yeni yönetim görevine başladı. Prof. Dr. Ayşın ERSOY Yüksekokul Müdürü olarak atanırken Müdür yardımcılığı görevlerine Dr. Öğretim Üyesi Narin ABDULLAH ve Öğretim Görevlisi İrem Nur ŞENER getirildi.

The new administration has assumed office at the Vocational School of Health Services. Prof. Dr. Ayşın Ersoy has been appointed as the Director, while Asst. Prof. Dr. Narin Abdullah and Lecturer İrem Nur Şener have been appointed as Vice Director.



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SHMYO Haber

VSHS Newsletter

Prof. Dr. Ahmet İLVAN'ı sevgi ve saygılarımızla uğurladık. 2019'dan itibaren Sağlık Hizmetleri Meslek Yüksekokulu Müdürlüğü görevini, birlikte çalıştığı herkesin kalbini kazanarak üstlenen değerli hocamıza verdiği emek ve katkılar için çok teşekkür ederiz. Hocamıza yeni görevinde başarı, sağlık ve huzur dileriz.

We bid farewell to Prof. Dr. Ahmet İlvan with our love and respect. We would like to express our deep gratitude to our esteemed professor for his efforts and contributions as the Director of the Vocational School of Health Services since 2019, winning the hearts of everyone he worked with. We wish our professor success, health, and peace in his new position.



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SHMYO Haber

VSHS Newsletter

Sağlık Hizmetleri Meslek Yüksekokulu, Optisyenlik Programı Başkanı Dr. Öğretim Üyesi Ayşe KARADENİZ YILDIRIM Doçent ünvanı aldı. Değerli hocamızın akademik hayatında başarılarının devamını dileriz.

Assist. Prof. Dr. Ayşe Karadeniz Yıldırım, Head of the Opticians Program at the Vocational School of Health Services, has received the title of Assoc. Prof. Dr. We wish our esteemed professor continued success in her academic career.



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Sağlık Hizmetleri Meslek Yüksekokulu tanıtım filmi çekimleri R Bloкта yer alan İletişim Fakültesi stüdyolarında İletişim Fakültesi Dekanı Sayın Prof. Dr. Özer KAMBUROĞLU moderatörlüğünde Yüksekokul Müdürümüz Prof. Dr. Ayşın ERSOY ile gerçekleştirildi. Bir sohbet samimiyeti içerisinde çekilen ve yüksekokulumuzun eğitim faaliyetleri ve yapısı ile ilgili bilgiler veren film SHMYO Web sitesinden izlenebilir.

The promotional film shoot for the Vocational School of Health Services was conducted in the Faculty of Communication studios located in R Block, featuring our Director, Prof. Dr. Ayşın Ersoy, and moderated by the Dean of the Faculty of Communication, Prof. Dr. Özer Kamburoğlu. The film, which was shot in a sincere conversational setting and provides information about the educational activities and structure of our vocational school, can be watched on the Vocational School of Health Services website.



<https://shmyo.aydin.edu.tr>

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VSHS Newsletter

Beş programda MEDEK akreditasyon başvuruları kabul edilen Fizyoterapi, Tıbbi Görüntüleme Teknikleri, Tıbbi Dokümantasyon ve Sekreterlik, Eczacılık Hizmetleri ve Sosyal Hizmetler Programları başkanları ile Yüksekokul Müdürlüğü bir akreditasyon toplantısı gerçekleştirdi. Toplantıya Yüksekokul Müdürü Prof. Dr. Aysin ERSOY başkanlığında; müdür yardımcıları ve ilgili program başkanları katıldı. Gerçekleştirilen akreditasyon toplantısında, programların hazırlıkları, yürütülen faaliyetler ve planlanan çalışmalar üzerine değerlendirmelerde bulunulmuş ve fikir alışverişi yapılmıştır.

The accreditation applications of five programs—Physiotherapy, Medical Imaging Techniques, Medical Documentation and Secretariat, Pharmacy Services, and Social Services—have been accepted by MEDEK. An accreditation meeting was held with the heads of these programs and the Vocational School Administration. The meeting was chaired by the Director, Prof. Dr. Aysin Ersoy, and attended by the vice directors and the relevant program heads. During the meeting, evaluations were made regarding the programs' preparations, ongoing activities, and planned studies, and ideas were exchanged.



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Yüksekokul Müdürü ve Müdür Yardımcıları, Laboratuvarlar Koordinatörü Öğretim Görevlisi Veli Bülent UÇAR eşliğinde SHMYO'ya bağlı tüm laboratuvarları içeren bir tur gerçekleştirdi. Laboratuvar turunda; laboratuvarların içerikleri, çalışma koşulları, eksiklikleri değerlendirilirken, laboratuvar ekibinin görev dağılımı hakkında da bilgi alındı.

The Director and Vice Directors of the Vocational School conducted a tour of all laboratories affiliated with the Vocational School of Health Services, accompanied by the Laboratory Coordinator, Lecturer Veli Bülent Uçar. During the laboratory tour, while the contents, working conditions, and deficiencies of the laboratories were evaluated, information was also received regarding the task distribution of the laboratory team.



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SHMYO İletişim ve Tanıtım Komisyonu Toplantısı

Sağlık Hizmetleri Meslek Yüksekokulu İletişim ve Tanıtım Komisyonu tarafından, kurum içi iletişimin güçlendirilmesi ve dijital görünürlüğün artırılması amacıyla bir toplantı gerçekleştirildi. Toplantıda, yüksekokul web sitesinin içerik yapısı ve güncelliği değerlendirilerek iyileştirme alanları ele alındı. Ayrıca bülten içerikleri ve tasarımına yönelik revizyonlar görüşülerek yeni tema belirlendi. Bu doğrultuda bu ay ilk revizyon çalışmaları hayata geçirildi. Komisyon çalışmalarının sürekliliğini sağlamak amacıyla toplantıların her ay düzenli olarak yapılmasına karar verildi.

SHMYO Communication and Promotion Commission Meeting

A meeting was held by the Communication and Promotion Commission of the Vocational School of Health Services in order to strengthen internal communication and increase digital visibility. During the meeting, the content structure and up-to-dateness of the school's website were evaluated, and areas for improvement were discussed. In addition, revisions regarding the bulletin content and design were reviewed, and a new theme was determined. Accordingly, the first revision efforts were implemented this month. To ensure the continuity of the commission's work, it was decided that meetings will be held regularly every month.



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SHMYO Etkinlik
VSHS Event

Öğr. Gör. Merve ARISOY Medipol Üniversitesi'nde Sunum Gerçekleştirdi
Öğr. Gör. Merve ARISOY, 23 Mart'ta İstanbul Medipol Üniversitesi'nde son sınıf öğrencilerine "El Amputasyonlarında Protez Uygulamaları" konulu bir sunum gerçekleştirmiştir. Sunumda el amputasyonlarında protez uygulamaları, değerlendirme, protez seçimi ve rehabilitasyon süreçlerine ilişkin güncel bilgiler paylaşılmıştır. Etkinlik soru-cevap bölümü ile tamamlanmıştır.

Lecturer Merve Arisoy Delivered a Presentation at Medipol University

Lect. Merve Arisoy delivered a presentation titled "Prosthetic Applications in Hand Amputations" to senior students at İstanbul Medipol University on March 23. During the presentation, up-to-date information regarding prosthetic applications, assessment, prosthesis selection, and rehabilitation processes in hand amputations was shared. The event concluded with a Q&A session.



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Film Gösterimi

İstanbul Aydın Üniversitesi Sosyal Hizmetler Programı'nda, 8 Mart Dünya Emekçi Kadınlar Günü kapsamında, Toplumsal Cinsiyet ve Sosyal Hizmet dersi çerçevesinde bir film gösterimi düzenlenmiştir. Kadınların oy hakkı mücadelesi (Suffragette hareketi), sinemanın sunduğu imkânlar aracılığıyla incelenmiş ve tartışılmıştır.

Film Screening

A film screening was organized within the Social Services Program of Istanbul Aydın University as part of March 8, International Working Women's Day, and within the framework of the Gender and Social Work course. The struggle for women's right to vote (Suffragette movement) was examined and discussed through the medium of cinema.



SİNEMA GÖSTERİMİ
Sosyal Hizmetler Programı
Toplumsal Cinsiyet ve Sosyal Hizmet Dersi
Öğr. Gör. Güler DEYMENÇİOĞLU

VOTES FOR WOMEN

SUFFRAGETTE

Tarih: 04.03.2026 Saat: 14.45 Yer:011605

Sosyal Hizmetler Programı öğrencilerimiz ve
İlgilenen bütün hocalarımız davetlidir.

Not: Dersi alan öğrencilere katılım zorunludur.

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Klinik Anestezi-1 Uygulaması

Klinik Anestezi-1 dersi kapsamında, Anestezi Programı 1. sınıf öğrencileriyle anestezi laboratuvarında maket üzerinde damar yolu açma uygulaması gerçekleştirilmiştir.

Clinical Anesthesia-1 Practice

Within the scope of the Clinical Anesthesia-1 course, vascular access practice on a mannequin was conducted with first-year students of the Anesthesia Program in the anesthesia laboratory.



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Protez-Ortez Alanında 3. Boyut Etkinliği

12.03.2026 tarihinde İstanbul Aydın Üniversitesi Sağlık Hizmetleri Meslek Yüksekokulu Ortez ve Protez Programı tarafından düzenlenen “Geleceğin Protez ve Ortezleri: 3D Yazıcılarla Dijital Üretim” etkinliği, A Blok 907 numaralı sınıfta saat 13.30’da başlamıştır. Etkinlik kapsamında, Root Cover firmasının sahibi ve Ortotist-Prostetist Alp Erol EVRENDİLEK tarafından katılımcılara 3D yazıcılar hakkında eğitim verilmiştir.

3D Dimension Event in Prosthetics and Orthotics

On 12.03.2026, an event titled “The Future of Prosthetics and Orthotics: Digital Manufacturing with 3D Printers” was organized by the Prosthetics and Orthotics Program of the Vocational School of Health Services at İstanbul Aydın University. The event took place in Classroom A Block 907 at 13:30. Within the scope of the event, training on 3D printing technologies and prosthetics-orthotics manufacturing processes was delivered by Alp Erol Evrendilek, owner of Root Cover company and Ortotist-Prosthetist.



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Transradial Amputelerde Soket Ölçü Alma Eğitimi

11.03.2026 tarihinde İstanbul Medipol Üniversitesi Sağlık Bilimleri Fakültesi Ortez ve Protez Bölümü tarafından düzenlenen “Transradial Amputelerde Soket Ölçü Alma Eğitimi” etkinliği kapsamında, öğretim görevlisi Sedigheh SHAHRIARI 3. sınıf Protez ve Ortez lisans öğrencilerine transradial soket ölçü alma eğitimi verilmiştir.

Socket Measurement Training for Transradial Amputees

On March 11, 2026, as part of the event organized by the Istanbul Medipol University, Faculty of Health Sciences, Department of Orthotics and Prosthetics, Lecturer Sedigheh Shahriari provided comprehensive training on transradial socket measurement to 3rd-year undergraduate students of the Orthotics and Prosthetics program.



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İlk Yardım Eğitimi ve Farkındalık Etkinliği

İstanbul Aydın Üniversitesi Sağlık Hizmetleri Meslek Yüksekokulu İlk ve Acil Yardım Programı Öğr. Gör. Şeyma KARABULUT ALUÇDİBİ ve İlk Yardım Kulübü öğrencileri, Mektebim Okulu Bağcılar Kampüsü'nde öğrencilerle bir araya gelerek ilk yardımın önemi ve temel ilk yardım müdahaleleri konusunda teorik ve uygulamalı bir etkinlik gerçekleştirmiştir.

First Aid Training and Awareness Event

Lecturer Şeyma Karabulut Aluçdibi from the First and Emergency Aid Program at Istanbul Aydın University, Vocational School of Health Services, together with students from the First Aid Club, organized a theoretical and practical event at the Mektebim School Bağcılar Campus. During the event, they met with students to emphasize the importance of first aid and demonstrate fundamental first aid interventions.



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Ameliyathane Hizmetleri Programında Öğrenci Vaka Sunumları

Sağlık Hizmetleri Meslek Yüksekokulu Ameliyathane Hizmetleri Programı Ameliyathane Uygulamaları II dersinde cerrahi branşlara özgü öğrenci vaka sunumları yapılmıştır. Öğrenciler, alanlarıyla ilgili güncel ve mesleki konuları araştırarak sınıf ortamında sunmuş; teorik bilgileri uygulama ile ilişkilendirme, analiz etme ve sunum becerilerini geliştirme fırsatı bulmuştur. Gerçekleştirilen sunumlar, öğrencilerin mesleki gelişimlerinin yanı sıra iletişim ve özgüven kazanmalarına katkı sağlamış olup, aktif öğrenme sürecini destekleyen önemli bir eğitim etkinliği olmuştur.

Student Case Presentations in Operating Room Services Program

Within the scope of the Operating Room Services Program at the Vocational School of Health Services, student case presentations specific to surgical branches are being conducted in the Operating Room Practices II course. By researching current and professional topics related to their field and presenting them in a classroom setting, students have had the opportunity to bridge theoretical knowledge with practice, develop analytical skills, and enhance their presentation abilities. These presentations have served as a significant educational activity that supports the active learning process, contributing to the students' professional development as well as their communication skills and self-confidence.

4 Mart 2026 tarihinde KVC (Kalp ve Damar Cerrahisi) branşına özgü öğrenci vaka sunumları gerçekleştirilmiştir.

Student case presentations specific to the Cardiovascular Surgery (CVS) branch were conducted on March 4, 2026.



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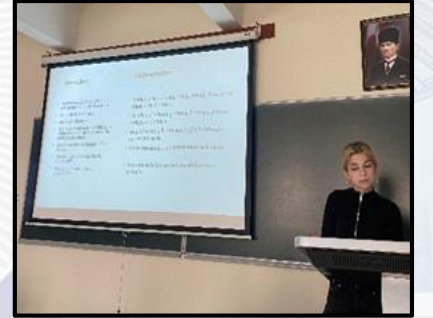
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Ameliyathane Hizmetleri Programında Öğrenci Vaka Sunumları

Student Case Presentations in Operating Room Services Program

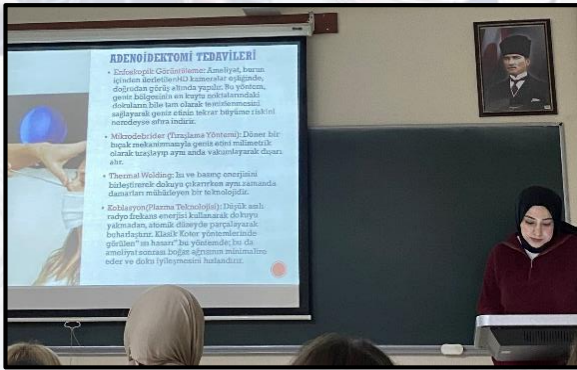
11 Mart tarihinde Ortopedi branşına özgü öğrenci vaka sunumları gerçekleştirilmiştir.

Student case presentations specific to the Orthopedics branch were conducted on March 11.



18 Mart tarihinde KBB (Kulak Burun Boğaz) branşına özgü öğrenci vaka sunumları gerçekleştirilmiştir.

Student case presentations specific to the ENT (Ear, Nose, Throat) branch were conducted on March 18.



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Sağlık Hizmetlerinde Stres Yönetimi Etkinliği

Sağlık Hizmetleri Meslek Yüksekokulu tarafından, 10 Mart 2026 tarihinde Öğr. Gör. Nisa GÖREN tarafından "Sağlık Hizmetlerinde Stres Yönetimi" konulu bir etkinlik düzenlenmiştir. Ameliyathane Hizmetleri Programı öğrencilerimizin katılım sağladığı etkinlikte; sağlık hizmet sunumunda karşılaşılan stres faktörleri, baş etme yöntemleri ve mesleki dayanıklılığın geliştirilmesine yönelik yaklaşımlar ele alınmıştır. Gerçekleştirilen etkinlik, öğrencilerimizin mesleki gelişimlerini desteklemenin yanı sıra programımızın kalite güvencesi, öğrenci merkezli öğrenme ve sürekli iyileştirme hedefleri doğrultusunda önemli katkı sağlamıştır.

Stress Management in Health Services Event

An event titled "Stress Management in Health Services" was organized by the Vocational School of Health Services on March 10, 2026, and conducted by Lect. Nisa Gören. During the event, which was attended by students of our Operating Room Services Program, stress factors encountered in the delivery of healthcare services, coping methods, and approaches to developing professional resilience were discussed. The event not only supported the professional development of our students but also made a significant contribution in line with our program's goals of quality assurance, student-centered learning, and continuous improvement.



İSTANBUL AYDIN
ÜNİVERSİTESİ
SAĞLIK HİZMETLERİ MESLEK
YÜKSEKOKULU

Sağlık Hizmetlerinde
**STRES
YÖNETİMİ**

Mor Salon - T Blok
10.03.2026
13:00 - 14:00

Öğr. Gör. Nisa GÖREN
Klinik Psikolog



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Bildiri Sunumu

İstanbul Aydın Üniversitesi Fizyoterapi Programı, Program Başkanı Öğr. Gör. Uğur OVACIK, 17-21 Mart tarihlerinde Danimarka'da düzenlenen "AD/PD™ 2026 International Conference on Alzheimer's and Parkinson's Diseases and Related Neurological Disorders" kongresinde, "Development of a Wearable Biosensor-Supported Tele-Monitoring and Telerehabilitation System for the Management of Neurodegenerative Diseases" başlıklı bildirisini sunmuştur.

Conference Presentation

Lect. Uğur Ovacık, Head of the Physiotherapy Program at Istanbul Aydın University, presented his paper titled "Development of a Wearable Biosensor-Supported Tele-Monitoring and Telerehabilitation System for the Management of Neurodegenerative Diseases" at the "AD/PD™ 2026 International Conference on Alzheimer's and Parkinson's Diseases and Related Neurological Disorders" held in Denmark on March 17-21



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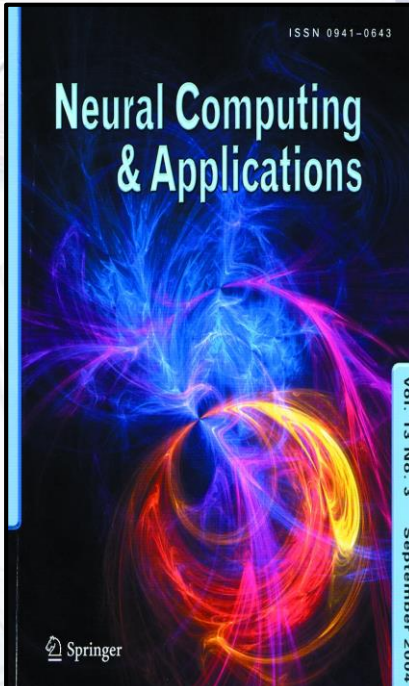
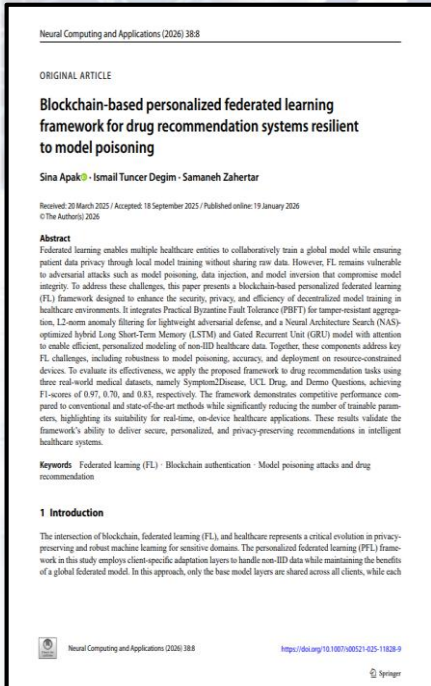
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Uluslararası Akademik Yayın Duyurusu

Uluslararası akademik faaliyetler kapsamında, İAÜ Eczane Hizmetleri Programı Öğr. Gör. Samaneh ZAHERTAR tarafından kaleme alınan "Blockchain-based personalized federated learning framework for drug recommendation systems resilient to model poisoning" başlıklı çalışma, *Neural Computing and Applications* (2026, 38:8) dergisinde yayımlanmıştır. Söz konusu çalışma, ilaç öneri sistemleri için blokzincir tabanlı kişiselleştirilmiş federated learning yaklaşımı sunmakta; model poisoning saldırılarına karşı dayanıklı, güvenli ve koruyucu bir çerçeve önermektedir. Çalışma, Scopus indeksinde taranan bir dergide yer almakta olup, *Neural Computing and Applications* dergisi SCImago verilerine göre Q1 kategorisinde bulunmaktadır (SCImago Journal Rank).

International Academic Publication Announcement

Within the scope of international academic activities, the study titled "Blockchain-based personalized federated learning framework for drug recommendation systems resilient to model poisoning," Lect. Samaneh ZAHERTAR from the Pharmacy Services Program of İAÜ, has been published in the journal *Neural Computing and Applications* (2026, 38:8). The study in question presents a blockchain-based personalized federated learning approach for drug recommendation systems, proposing a secure and protective framework resilient against model poisoning attacks. The study is featured in a journal indexed in Scopus, and according to SCImago data, the *Neural Computing and Applications* journal is ranked in the Q1 category (SCImago Journal Rank).



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Uluslararası Akademik Yayın Duyurusu

İstanbul Aydın Üniversitesi Optisyenlik Programı öğretim elemanlarından Doç. Dr. Ulaş ÖZDEM tarafından kaleme alınan "Hidden-charm pentaquarks: Electromagnetic structure in a diquark–diquark–antiquark model" başlıklı makale, SCI-Expanded (SCI-E) kapsamında taranan ve Q2 kategorisinde yer alan *European Physical Journal C* dergisinde yayımlanmıştır.

International Academic Publication Announcement

The article titled "Hidden-charm pentaquarks: Electromagnetic structure in a diquark–diquark–antiquark model," authored by Assoc. Prof. Dr. Ulaş Özdem from the Opticians Program of Istanbul Aydın University, has been published in the journal *European Physical Journal C*, which is indexed in SCI-Expanded (SCI-E) and ranked in the Q2 category.

Eur. Phys. J. C (2026) 86:339
https://doi.org/10.1146/epjc/2026/026-1591-6

THE EUROPEAN
PHYSICAL JOURNAL C

Regular Article - Theoretical Physics

Hidden-charm pentaquarks: electromagnetic structure in a diquark–diquark–antiquark model

Ulaş Özdem¹

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Abstract We systematically investigate the electromagnetic properties of exotic states whose internal structures remain uncertain and for which different models have been proposed. In this work, we focus on the magnetic dipole moments of hidden-charm pentaquark states using QCD light-cone sum rules with four distinct interpolating currents. The analysis accounts for contributions from both light and charm quark sectors, as well as higher-dimensional operators, ensuring convergence of the operator product expansion and dominance of the ground-state pole. Our results demonstrate a strong dependence of the magnetic moments on the internal quark configurations and spin alignments, revealing substantial variations among the different currents despite identical quark content and quantum numbers. Comparisons with existing studies indicate that while molecular-type predictions show general agreement, compact configurations yield markedly different values, including significant differences in sign and magnitude. These findings therefore underscore the sensitivity of electromagnetic observables to the internal structure of exotic hadrons and highlight their potential as probes to discriminate between competing structural models for spin-parity assignments and underlying quark dynamics.

firmation finally arrived. In 2003, the Belle Collaboration reported the discovery of the $X(3872)$ resonance [1], which was interpreted as a strong candidate for a tetraquark state. This milestone provided the first concrete evidence for multi-quark dynamics and marked a turning point in the field. Since then, a growing list of exotic candidates has been observed by various collaborations, steadily broadening our understanding of the hadronic spectrum. A second decisive step came in 2015, when the LHCb Collaboration identified pentaquark-like structures in the $J/\psi\theta$ channel, revealing two states, $P_c^+(4380)$ and $P_c^+(4450)$ [2]. This discovery provided the first strong evidence for hadrons containing five valence quarks. Subsequent studies with larger datasets refined the picture. The 2019 LHCb analysis demonstrated that the $P_c^+(4450)$ resonance actually corresponds to two nearby states, $P_c^+(4440)$ and $P_c^+(4457)$, and also uncovered a new peak associated with the $P_c^+(4312)$ state [3]. The status of the $P_c^+(4380)$, however, remains unresolved, as later analyses neither confirmed nor decisively excluded it. Further discoveries continued to enrich the spectrum. In 2020, LHCb reported a new hidden-charm pentaquark, $P_c^0(4459)$, in the $J/\psi\theta$ invariant mass spectrum [4]. This was followed in 2022 by the observation of another state, $P_c^+(4338)$, identified in $B^- \rightarrow J/\psi\theta$ decays [5]. More recently, the Belle Collaboration searched for P_c^0 states in $\Upsilon(1S, 2S)$ inclusive decays to J/ψ final states, but found no significant signal for $P_c^0(4312)$, $P_c^0(4440)$, or $P_c^0(4457)$ [6]. Nevertheless, in 2025, Belle reported evidence for the $P_c^+(4459)$ with a significance of 3.3σ , including systematic and statistical uncertainties [7]. A summary of the reported hidden-charm pentaquark states, including their measured properties and decay channels, is presented in Table 1. Alongside these observations, ongoing searches are probing states with higher strangeness. In particular, the CMS Collaboration recently studied the decay $\Lambda_b^0 \rightarrow J/\psi\Xi^0 K^0$ [8]. Although the data sample showed no distinct resonance structure in

1 Introduction

The exploration of hadronic matter has, since the proposal of the quark model, extended well beyond conventional mesons and baryons to include more complex configurations such as tetraquarks, hybrids, glueballs, and pentaquarks. Quantum Chromodynamics (QCD) does not forbid the existence of such exotic systems, and their potential presence has remained a compelling question within hadron physics for decades. For a long period, however, these states were discussed largely on theoretical grounds until experimental con-

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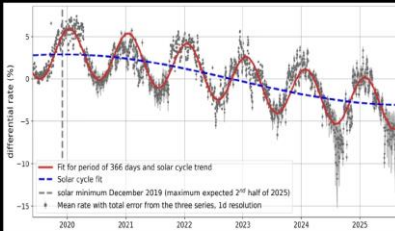
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Particles and Fields

From "Measurement of the cosmic-ray rate over the period 2010–2025 at very high latitude (78.9°N)" by M. Abbrescia, C. Avanzini, L. Baldini et al., Eur. Phys. J. C 86, 289 (2026).



Average rate of the three POLAR stations. Uncertainties combine statistical errors, calculated as the mean-squared error of the three time series, and systematic errors. The pseudo-annual periodic fit and solar-cycle trend are reported. A reference to the solar-cycle minimum is also shown (grey dashed line).



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Uluslararası Akademik Yayın Duyurusu

İstanbul Aydın Üniversitesi Optisyenlik Programı öğretim elemanlarından Doç. Dr. Ulaş ÖZDEM tarafından kaleme alınan "Elucidating the nature of axial-vector charm-antibottom tetraquark states" başlıklı makale, SCI-Expanded (SCI-E) kapsamında taranan ve Q2 kategorisinde yer alan *Chinese Physics C* dergisinde yayımlanmıştır.

International Academic Publication Announcement

The article titled "Elucidating the nature of axial-vector charm-antibottom tetraquark states," authored by Assoc. Prof. Dr. Ulaş Özdem from the Opticians Program of Istanbul Aydın University, has been published in the journal *Chinese Physics C*, which is indexed in SCI-Expanded (SCI-E) and ranked in the Q2 category.

Chinese Physics C Vol. 50, No. 5 (2026) 05104

Elucidating the nature of axial-vector charm-antibottom tetraquark states

Ulaş Özdem

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Abstract: Investigating the electromagnetic characteristics of unconventional states may offer new insights into their internal structures. In particular, the magnetic moment attributes may serve as a crucial physical observable for differentiating exotic states with disparate configurations or spin-parity quantum numbers. As a promising avenue for research, encompassing both opportunities and challenges, an in-depth examination of the electromagnetic properties of exotic states is crucial for advancing our understanding of unconventional states. Motivated by this, in this study, the magnetic moments of $J^P = 1^{++}$ Z_c tetraquark states are analyzed in the framework of QCD light-cone sum rules by considering the diquark-antidiquark approximation, designated as type 1, 2, 3. Although the tetraquark states examined in this study have nearly identical masses, their magnetic moment results exhibit noticeable discrepancies. This may facilitate the differentiation between quantum numbers associated with states with identical quark content. The results show that heavy quarks overweighing light quarks can determine both the sign and magnitude of the magnetic moments of these tetraquark states. The numerical results obtained in this study suggest that the magnetic moments of Z_c tetraquark states may reveal aspects of their underlying structure, which could distinguish between their spin-parity quantum numbers and internal structure. The results obtained regarding the magnetic moments of the Z_c tetraquark states may be checked within the context of different phenomenological approaches.

Keywords: open-flavor system, charm-antibottom tetraquarks, QCD light-cone sumrules, Magnetic moments

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1. MOTIVATION

Although the existence of hadrons with more sophisticated configurations than those comprising qq and qqq has been known for several decades, the experimental confirmation of the presence of the exotic state labeled $Z(3872)$ was accomplished by the Belle Collaboration in 2003 [1]. Subsequently, various experimental collaborations have identified a considerable number of exotic states. With each new observation, the family of such exotic states continues to diversify, representing a dynamically evolving and active field within hadron physics, encompassing experimental and theoretical approaches. Various theoretical explanations have been put forth to elucidate the true nature of these states. These explanations have been proposed in conjunction with several different theoretical constructs, including more traditional hadrons, loosely bound molecular states, compact pentaquarks or tetraquarks, hybrids, glueballs, kinematic effects, and other related concepts. However, despite comprehensive investigations, both theoretical and exper-

imental, the fundamental questions concerning the nature, quantum numbers, and decay properties of these exotic states remain unresolved. A list of the most recent advances in the domain of exotic states can be found in Refs. [2–17].

Most observed tetraquark states are classified as hidden-charm or hidden-bottom tetraquark states, encompassing the $c\bar{c}$ or $b\bar{b}$ pair. Nevertheless, the fundamental principles of QCD do not preclude the theoretical possibility of open-flavor tetraquark states. The $[q_1 q_2] q_3 q_4$ with $q = u, d, s$ and \bar{q} tetraquark states represent a distinct category of exotic state. A considerable amount of theoretical information on the expected properties of these tetraquark states is available in the literature since the original studies began more than two decades ago [18–25]. While these specific tetraquark configurations have not yet been observed experimentally, they represent a theoretically compelling subject in hadron spectroscopy. The $[q_1 q_2] q_3 q_4$ system is particularly noteworthy because, unlike hidden-flavor tetraquarks (e.g., $c\bar{c}q_1 q_2$), it possesses inherent stability and is expected to exhibit narrow

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Uluslararası Akademik Yayın Duyurusu

İstanbul Aydın Üniversitesi Fizyoterapi Programı Öğr. Gör. İrem Nur ŞENER tarafından kaleme alınan "Immediate Effect of Rigid Taping and Patella-Stabilizing Brace on Proprioception, Functionality, and Balance in Patients with Patellofemoral Pain Syndrome: A Randomised Controlled Trial" başlıklı makale, SCI-Expanded (SCI-E) kapsamında taranan ve Q1 kategorisinde yer alan *Journal of Clinical Medicine* dergisinde yayımlanmıştır.

International Academic Publication Announcement

The article titled "Immediate Effect of Rigid Taping and Patella-Stabilizing Brace on Proprioception, Functionality, and Balance in Patients with Patellofemoral Pain Syndrome: A Randomised Controlled Trial," authored by Lect. İrem Nur Şener from the Istanbul Aydın University Physiotherapy Program, has been published in the *Journal of Clinical Medicine*, which is indexed in SCI-Expanded (SCI-E) and ranked in the Q1 category.

Journal of
Clinical Medicine

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Article

Immediate Effect of Rigid Taping and Patella-Stabilizing Brace on Proprioception, Functionality, and Balance in Patients with Patellofemoral Pain Syndrome: A Randomised Controlled Trial

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Abstract

Background: Patellofemoral pain syndrome (PFPS) is a common musculoskeletal disorder that involves various biomechanical factors, including the altered positioning of the patella, weakness of the lower extremity muscles, delayed activation of the vastus medialis muscle, and excessive pronation of the foot. Although the short- and long-term effects of external support among the recommended conservative treatment methods for PFPS have been examined, there remains a lack of consensus regarding their impacts. This study was conducted to investigate the immediate effects of braces and rigid taping applied to control pain on proprioception, functional status, and balance in patients with PFPS, and to compare these outcomes with normative values obtained from healthy individuals.

Methods: The study included 18 patients with PFPS and 18 healthy individuals who met the inclusion criteria. Through randomization of the intervention sequence, patients were evaluated under conditions of rigid taping, support, or without any support. Their pain levels before and after the application were assessed using the Visual Analog Scale; their functional status was evaluated with the Kujala Patellofemoral Scoring, the 10-Step Up Test, and the Squat; their balance performance was measured using the Y-Balance Test and the Single Leg Stance Test; and their proprioception was assessed with the Joint Position Sense Test. **Results:** It has been determined that rigid taping and bracing have similar effects in the immediate management of pain, proprioception, functional status, and balance issues in patients with PFPS. The interventions were observed to bring patients' static balance and proprioception parameters closer to the values seen in healthy individuals. **Conclusions:** Rigid taping and bracing are both effective interventions in the management of PFPS, offering benefits such as pain relief, prevention of proprioceptive deficits, mitigation of balance impairments, and enhancement of functional outcomes. The selection of the most appropriate modality should be based on the individual patient's characteristics and tolerance levels.

Keywords: patellofemoral pain syndrome; function; brace; taping; proprioception

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Uluslararası Akademik Yayın Duyurusu

İstanbul Aydın Üniversitesi Tıbbi Laboratuvar Programı Dr. Öğr. Üyesi Silva POLAT SARI tarafından kaleme alınan "Protective effects of gilaburu (*Viburnum opulus* L.) fruit extract on testicular damage in streptozotocin-induced diabetic rats" başlıklı makale, SCI-Expanded (SCI-E) kapsamında taranan ve (WOS) Q4 kategorisinde yer alan *Indian Journal of Experimental Biology* dergisinden kabul almıştır.

International Academic Publication Announcement

The article titled "Protective effects of gilaburu (*Viburnum opulus* L.) fruit extract on testicular damage in streptozotocin-induced diabetic rats," authored by Asst. Prof. Dr. Silva Polat Sarı from the Istanbul Aydın University Medical Laboratory Techniques Program, has been accepted for publication in the *Indian Journal of Experimental Biology*, which is indexed in SCI-Expanded (SCI-E) and ranked in the (WOS) Q4 category.



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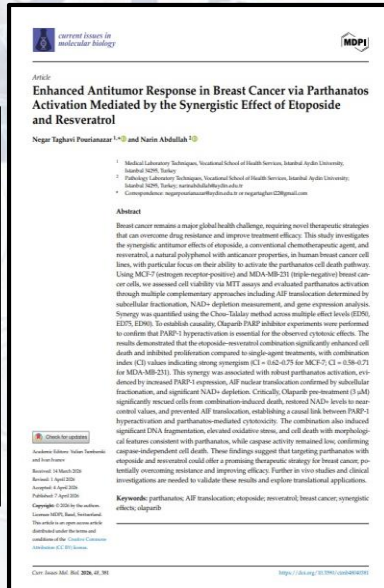
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Current Issues in Molecular Biology dergisinde, İstanbul Aydın Üniversitesi, Tıbbi Laboratuvar Teknikleri programından Dr. Öğr. Üyesi Negar TAGHAVİ POURIANAZAR ve Patoloji Laboratuvar Teknikleri programından Dr. Öğr. Üyesi Narin ABDULLAH tarafından hazırlanan makale yayımlanmıştır. “Enhanced Antitumor Response in Breast Cancer via Parthanatos Activation Mediated by the Synergistic Effect of Etoposide and Resveratrol” başlıklı çalışmada, etoposid ve resveratrol kombinasyonunun meme kanseri hücrelerinde parthanatos aracılı hücre ölümü üzerinden antitümör etkinliği artırdığı deneysel olarak ortaya konmuştur. Elde edilen bulgular, kombinasyon tedavilerinin moleküler mekanizmalarının anlaşılmasına katkı sağlamakta ve kanser tedavisinde yenilikçi stratejilerin geliştirilmesi açısından önem taşımaktadır.

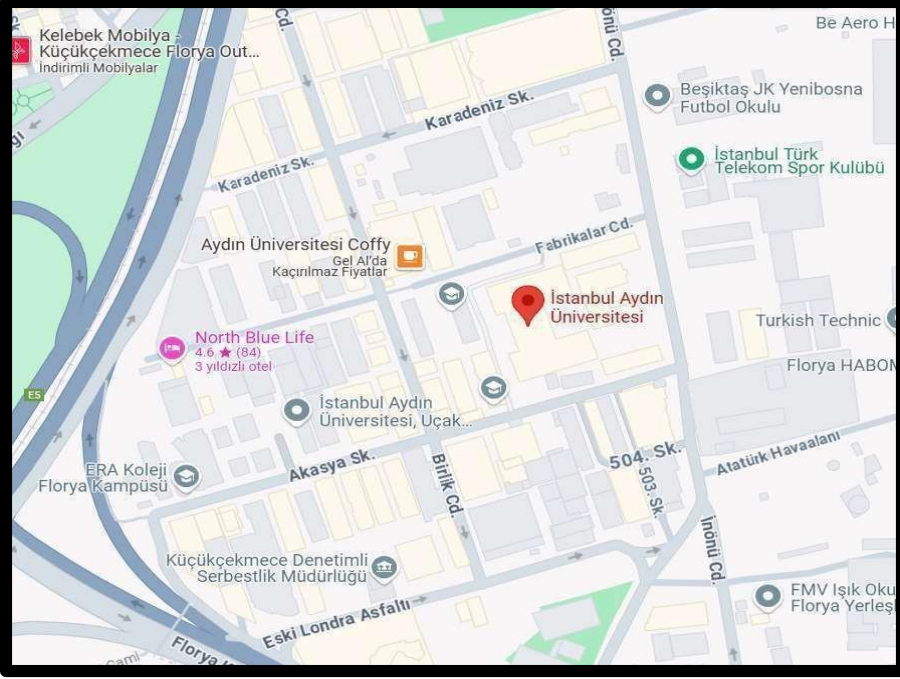
International Academic Publication Announcement

An article authored by Assist. Prof. Negar Taghavi Pourianazar from the Medical Laboratory Techniques program and Assist. Prof. Narin Abdullah from the Pathology Laboratory Techniques program at Istanbul Aydın University has been published in the journal *Current Issues in Molecular Biology*. In the study titled “Enhanced Antitumor Response in Breast Cancer via Parthanatos Activation Mediated by the Synergistic Effect of Etoposide and Resveratrol,” it was experimentally demonstrated that the combination of etoposide and resveratrol enhances antitumor efficacy in breast cancer cells through parthanatos-mediated cell death. The findings contribute to a better understanding of the molecular mechanisms underlying combination therapies and hold significant importance for the development of innovative strategies in cancer treatment.



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