



# İSTANBUL AYDIN ÜNİVERSİTESİ

## SAĞLIK HİZMETLERİ MESLEK YÜKSEKOKULU E-BÜLTENİ



HAZİRAN 2025



# SAĞLIK HİZMETLERİ MESLEK YÜKSEKOKULU

## YAYINKURULU

T.C.

**İstanbul Aydın Üniversitesi**

**Adına Sahibi**

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Öğr. Gör. Burcu GÜNAYDIN



# SAĞLIK HİZMETLERİ MESLEK YÜKSEKOKULU

## PROGRAMLARIMIZ

- AĞIZ VE DİŞ SAĞLIĞI
- AMELİYATHANE HİZMETLERİ
- ANESTEZİ
- DİŞ PROTEZ TEKNOLOJİSİ
- DİYALİZ
- ECZANE HİZMETLERİ
- ELEKTRONOROFİZYOLOJİ
- FİZYOTERAPİ
- İLK VE ACİL YARDIM
- ODYOMETRİ
- OPTİSYENLİK
- ORTOPEDİK PROTEZ VE ORTEZ
- PATOLOJİ LABORATUVAR TEKNİKLERİ
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# TIBBİ LABORATUVAR TEKNİKLERİ PROGRAMI

## 5 HAZİRAN DÜNYA ÇEVRE KAPSAMINDA SÜRDÜRÜLEBİLİR SANATTA SAĞLIK WEBİNARI

Dünya genelinde çevre bilincinin artırılması amacıyla kutlanan 5 Haziran Dünya Çevre Günü kapsamında, İAÜ tarafından “Sürdürülebilir Sanatta Sağlık” konulu bir webinar düzenlendi. Etkinlik, Neslihan YETİŞKİN’in değerli sunumlarıyla gerçekleştirildi. Webinarında, sürdürülebilir sanat üretim süreçlerinin çevresel etkileri, atık yönetimi, geri dönüşümün sanattaki rolü ve sağlık alanındaki yansımaları ele alındı.

## WEBINAR ON HEALTH IN SUSTAINABLE ART WITHIN THE SCOPE OF JUNE 5 WORLD ENVIRONMENT DAY

As part of World Environment Day, celebrated globally on June 5 to raise environmental awareness, Istanbul Aydın University (IAU) organized a webinar titled “Sustainability in Art and Health.” The event featured valuable presentations by Neslihan YETİŞKİN. The webinar addressed the environmental impacts of sustainable art production processes, waste management, the role of recycling in art, and its reflections in the field of health.

The poster is for a webinar titled "SÜRDÜRÜLEBİLİR SANATTA SAĞLIK" (Sustainable Art and Health). It is organized by Istanbul Aydın University (İAÜ) and the Faculty of Health Services, Department of Medical Laboratory Techniques. The event is scheduled for June 2, 2025, from 15:00 to 17:00. The Zoom ID is 89285065194 and the password is 4441428. The moderator is Dr. Öğr. Üyesi Silva POLAT SARI, the Head of the Medical Laboratory Techniques Program. The guest is Neslihan YETİŞKİN, an Ecoart Artist. The poster features the university logo, the title in large green letters, and circular portraits of the moderator and guest. The background is light green with illustrations of people walking, pushing a stroller, and riding a bicycle, symbolizing health and sustainability.



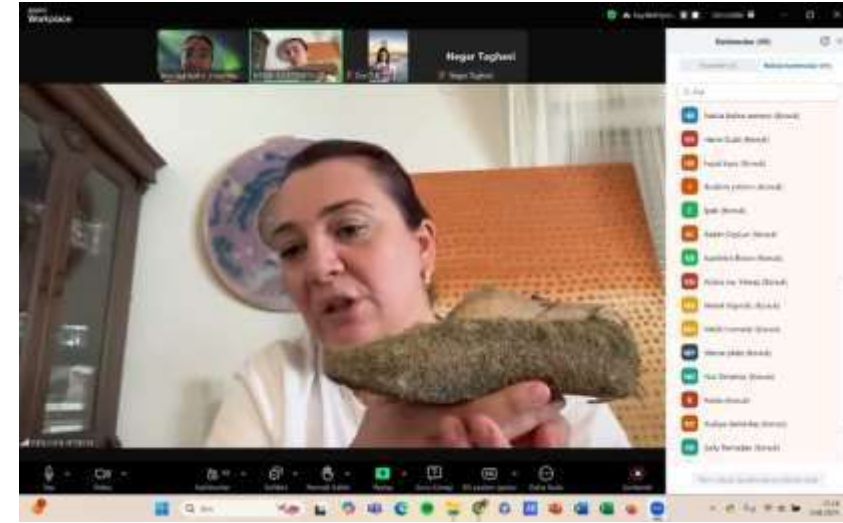
## TIBBİ LABORATUVAR TEKNİKLERİ PROGRAMI

### 5 HAZİRAN DÜNYA ÇEVRE KAPSAMINDA SÜRDÜRÜLEBİLİR SANATTA SAĞLIK WEBİNARI

Neslihan YETİŞKİN, sanatın toplumsal farkındalık oluşturma gücüne dikkat çekerek çevreyi koruma bilincinin yaygınlaştırılmasında sanatın bir araç olarak nasıl kullanılabileceğini anlattı. Katılımcılara sürdürülebilir uygulamalara dair örnek projeler sunulurken, bireysel ve toplumsal düzeyde çevre dostu yaklaşımların benimsenmesinin sağlıklı bir gelecek inşasındaki önemi vurgulandı. Etkinlik sonunda katılımcılar, hem sağlık hem sanat alanında sürdürülebilirlik hedeflerine katkıda bulunabilecekleri somut adımlar konusunda bilgilendirildi ve Dünya Çevre Günü kapsamında farkındalıklarının artması sağlandı.

### WEBINAR ON HEALTH IN SUSTAINABLE ART WITHIN THE SCOPE OF JUNE 5 WORLD ENVIRONMENT DAY

Neslihan YETİŞKİN drew attention to art's power to foster social awareness and explained how it can be employed as a tool to spread consciousness about protecting the environment. Participants were shown exemplary projects illustrating sustainable practices, and the importance of embracing eco-friendly approaches, both individually and collectively, in building a healthy future was emphasized. At the conclusion of the event, attendees were informed about concrete steps they can take to contribute to sustainability goals in both the health and art sectors, thereby deepening their awareness in honor of World Environment Day.





# TIBBİ LABORATUVAR TEKNİKLERİ PROGRAMI

## Öğrencilerimizden Geleceğe Nefes: TEMA'ya Fidan Bağışı

5 Haziran Dünya Çevre Günü kapsamında düzenlenen “Sürdürülebilir Sanatta Sağlık” webinarı sonrasında öğrencilerimiz, çevre bilincinin somut bir adımına dönüştürerek TEMA Vakfı'na fidan bağışında bulundu. Öğrencilerimiz, bu anlamlı katkılarıyla doğaya ve geleceğe nefes olacak bir dayanışma örneği sergiledi. Fidan bağışı sertifikaları, öğrencilerimizin çevre bilincine duyarlılıklarını simgelerken daha yeşil bir gelecek inşa etme yolunda attıkları adımların bir göstergesi oldu. Öğrencilerimizi bu duyarlı davranışlarından dolayı tebrik ediyor, çevreye olan katkılarının tüm topluma örnek olmasını diliyoruz.

### A Breath for the Future from Our Students: Tree Donations to TEMA

Following the “Health in Sustainable Art” webinar held as part of World Environment Day on June 5, our students took a tangible step toward environmental awareness by donating saplings to the TEMA Foundation. Through this meaningful contribution, our students demonstrated a strong example of solidarity that will breathe life into nature and the future. The tree donation certificates symbolize our students' sensitivity toward environmental awareness and represent the steps they have taken toward building a greener future. We congratulate our students on this thoughtful act and hope their contributions to the environment serve as an example to society as a whole.





## TIBBİ LABORATUVAR TEKNİKLERİ PROGRAMI

### AKREDİTASYON KOMİSYON TOPLANTISI

Ameliyathane Hizmetleri Programı, İlk ve Acil Yardım Programı, Patoloji Laboratuvar Teknikleri Programı ve Tıbbi Laboratuvar Teknikleri Programı'nın MEDEK akreditasyon başvuru süreci kapsamında, ÖZ Değerlendirme Raporlarının gönderimi öncesinde Müdürümüz Prof. Dr. Ahmet İLVAN başkanlığında akreditasyon komisyon toplantısı gerçekleştirildi. Toplantıda, hazırlanan raporun son kontrolleri yapılarak eksiksiz ve nitelikli bir başvuru süreci yürütülmesi hedeflendi. Komisyon üyeleri, raporun içeriği ve ek belgeler üzerinde değerlendirmelerde bulunarak program kalitesinin sürekli iyileştirilmesi için yapılacak çalışmalar konusunda görüş birliğine vardı. Sürece katkı sunan tüm komisyon üyelerimize teşekkür ederiz.

### ACCREDITATION COMMITTEE MEETING

Within the scope of the MEDEK accreditation application process for the Operating Room Services Program, First and Emergency Aid Program, Pathology Laboratory Techniques Program, and Medical Laboratory Techniques Program, an accreditation committee meeting was held under the chairmanship of our Director, Prof. Dr. Ahmet İLVAN, prior to the submission of the Self-Evaluation Reports. During the meeting, the final review of the prepared reports was conducted with the aim of carrying out a complete and high-quality application process. Committee members evaluated the content of the reports and the supporting documents, reaching a consensus on the actions to be taken to ensure continuous improvement of program quality.

We extend our sincere thanks to all committee members for their contributions to the process.





# PATOLOJİ LABORATUVAR TEKNİKLERİ PROGRAMI

## BAŞ VE BOYUN KANSERLERİ WEBİNARI

27 Haziran 2025 tarihinde saat 18:00'da Patoloji Laboratuvar Teknikleri Programı'ndan Öğr. Gör. Burcu GÜNAYDIN'ın moderatörlüğünde, Kulak Burun Boğaz Hastalıkları Uzmanı Dr. Öğr. Üyesi Kerimcan ÇAKICI ile "Baş ve Boyun Kanseri" başlıklı webinar etkinliği yapılmıştır. Etkinlik ile baş ve boyun kanserleri konusunda katılımcılara bilgi sunmak ve toplumsal farkındalık oluşturmak amaçlanmıştır.

## HEAD AND NECK CANCERS WEBINAR

On June 27, 2025, at 18:00, a webinar titled "Head and Neck Cancers" was held under the moderation of Lecturer Burcu GÜNAYDIN from the Pathology Laboratory Techniques Program, with the participation of Otorhinolaryngology Specialist Dr. Lecturer Kerimcan ÇAKICI. The aim of the event was to provide participants with information about head and neck cancers and to raise public awareness on the subject.

The poster features the Istanbul Aydın University logo and the 24th anniversary logo. The title "BAŞ VE BOYUN KANSERLERİ" is prominently displayed. Below the title are circular portraits of the speakers: Dr. Öğr. Üyesi Kerimcan ÇAKICI (Kulak Burun Boğaz Hastalıkları Uzmanı, Işık Üniversitesi) and Öğr. Gör. Burcu GÜNAYDIN (Işık Patoloji Laboratuvarı Teknikleri Programı, İstanbul Aydın Üniversitesi). The event details at the bottom include the date "27 Haziran 2025", time "18.00", "ONLINE" status, and "Meeting ID : 87474460256" and "Password : 4441428".

The screenshot shows a presentation slide titled "Oral Kavite Kanseri". On the left, there is a diagram of the oral cavity with a legend listing various sites: ALT VE ÜST DUDAK, AĞIZ TABANI, GINGİVA, BURKAL MUKOZA, RETROMOLAR TRİGON, SERT DAMAK, and DİL (ÖN 2/3). On the right, there is a 3D pie chart showing the distribution of cancer sites. The legend for the pie chart includes: Tensek, Floor of mouth, Dişak, Dilin, Retromolar Trigone, Hard palate, and Lip. The slide is part of a Zoom meeting with participants visible in the top bar.



# PATOLOJİ LABORATUVAR TEKNİKLERİ PROGRAMI

## PATOLOJİ LABORATUVAR TEKNİKLERİ PROGRAMI- MESLEK TANITIMI / OKUL ZİYARETİ

Üniversitemiz adına patoloji laboratuvarını ve Patoloji Laboratuvar Teknikerliği mesleğini lise öğrencilerine tanıtmak amacıyla 2024-2025 eğitim öğretim yılı bahar dönemi Haziran ayı içerisinde Patoloji Laboratuvar Teknikleri Programı öğrencileri Küçükçekmece ilçesinde toplumsal katkı kapsamında liselere ziyaret etkinliği gerçekleştirdi. Patoloji laboratuvar teknikleri programından gönüllü öğrencilerle oluşturulan ekip Öğr. Gör. Beyza AYAN eşliğinde dönem içerisinde hazırlıklarını tamamlayarak 11 Haziran tarihinde etkinliği gerçekleştirdiler.

## PATHOLOGY LABORATORY TECHNIQUES PROGRAM – CAREER INTRODUCTION / SCHOOL VISIT

In order to introduce the pathology laboratory and the profession of Pathology Laboratory Technician to high school students on behalf of our university, students from the Pathology Laboratory Techniques Program carried out a school visit event in June during the spring term of the 2024–2025 academic year, as part of a community engagement initiative in the Küçükçekmece district. A team of volunteer students from the Pathology Laboratory Techniques Program, under the supervision of Lecturer Beyza AYAN, completed their preparations throughout the term and successfully carried out the event on June 11.





## PATOLOJİ LABORATUVAR TEKNİKLERİ PROGRAMI

### PATOLOJİ LABORATUVAR TEKNİKLERİ PROGRAMI- MESLEK TANITIMI / OKUL ZİYARETİ

Okul müdürü Remzi HAKVERDİ ve biyoloji öğretmeni Kemaleddin GÜNDÜZ desteği ile yapılan etkinlikte lisenin tüm kademesinde bulunan öğrencilere; hastanelerde patoloji laboratuvarının rolünü ve patoloji teknikerlerinin meslek tanımını, görev ve çalışma alanlarını görseller ve materyaller eşliğinde anlattılar. Etkinlik sonunda lise öğrencilerinin sorularını yanıtlayarak, etkinlik kapsamında hastanede laboratuvarın önemini ve teknikerlerin sahadaki rollerini lise öğrencilerine kavratıldılar.

### PATHOLOGY LABORATORY TECHNIQUES PROGRAM – CAREER INTRODUCTION / SCHOOL VISIT

With the support of School Principal Remzi HAKVERDİ and Biology Teacher Kemaleddin GÜNDÜZ, the event was carried out for students at all grade levels of the high school. During the event, the university students explained the role of pathology laboratories in hospitals, the job description of pathology technicians, their duties, and areas of work, accompanied by visuals and materials. At the end of the event, they answered the high school students' questions, helping them understand the importance of laboratories in hospitals and the critical roles technicians play in the field.





# OPTİSYENLİK PROGRAMI

## Makale

Optisyonluk Programı Öğretim Üyesi Doç. Dr. Ulaş ÖZDEM'in 'Probing the electromagnetic structure of the  $P_c(4337)^+$  pentaquark: Insights from a diquark-diquark-antiquark picture for  $JP = 1/2^-$  and  $3/2^-$  states.' adlı çalışması yayınlanmıştır.

## Article

An article by Assoc. Prof. Dr. Ulaş ÖZDEM, a faculty member of the Opticianry Program, titled “*Probing the electromagnetic structure of the  $P_c(4337)^+$  pentaquark: Insights from a diquark-diquark-antiquark picture for  $JP = 1/2^-$  and  $3/2^-$  states*” has been published.



Probing the electromagnetic structure of the  $P_c(4337)^+$  pentaquark: Insights from a diquark-diquark-antiquark picture for  $J^P = \frac{1}{2}^-$  and  $\frac{3}{2}^-$  states

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(Dated: June 17, 2025)

In this work, the electromagnetic structure of the hidden-charm pentaquark  $P_c(4337)$  is investigated within the diquark-diquark-antiquark model using the QCD light-cone sum rule approach. The magnetic moments of the  $P_c(4337)$  state are calculated for the spin-parity assignments  $J^P = \frac{1}{2}^-$  and  $\frac{3}{2}^-$ . The results are found to be  $\mu_{P_c} = 1.76 \pm 0.44 \mu_N$  for the  $\frac{1}{2}^-$  case and  $\mu_{P_c} = -1.38 \pm 0.35 \mu_N$  for the  $\frac{3}{2}^-$  scenario. These findings offer important insights into the internal quark-gluon structure and electromagnetic features of this multiquark system. Beyond their theoretical relevance, the results serve as essential benchmarks for future experimental studies aimed at determining the quantum numbers and underlying configuration of the  $P_c(4337)$ . Additionally, the electric quadrupole and magnetic octupole moments of the spin- $\frac{3}{2}$  state are extracted, indicating a non-spherical charge distribution for this exotic pentaquark.

### I. INTRODUCTION

In 2015, the LHCb Collaboration reported the discovery of a new class of exotic hadrons — the pentaquark states — composed of five valence quarks. Two such states, denoted as  $P_c(4380)$  and  $P_c(4450)$ , were identified through their signatures in the  $J/\psi p$  decay channel [1]. In 2019, analyses based on an enlarged data sample provided further insights into the pentaquark spectrum. These studies revealed that the previously observed  $P_c(4450)$  structure actually consists of two distinct states,  $P_c(4440)$  and  $P_c(4457)$ . Additionally, a new resonance,  $P_c(4312)$ , was identified in the same analysis [2]. It is worth noting that the  $P_c(4380)$  pentaquark, which was reported in the earlier analysis, has neither been confirmed nor conclusively excluded in subsequent investigations. In 2020, the LHCb Collaboration reported the observation of a new pentaquark candidate,  $P_{cs}(4459)$ , in the  $J/\psi \Lambda$  invariant mass spectrum, identified in the decay channel  $\Xi_b^0 \rightarrow J/\psi \Lambda K^-$  [3]. In 2022, another structure,  $P_{cs}(4338)$ , was observed by the LHCb Collaboration in the  $J/\psi \Lambda$  invariant mass spectrum, originating from the  $B^- \rightarrow J/\psi \Lambda p$  decay process [4]. Very recently, the Belle Collaboration reported evidence for the  $P_{cs}(4459)$  state, with a significance of 3.3 standard deviations, including both statistical and systematic uncertainties. The mass and width of the  $P_{cs}(4459)$  were measured to be  $(4471.7 \pm 4.8 \pm 0.6)$ , MeV and  $(21.9 \pm 13.1 \pm 2.7)$ , MeV, respectively [5]. With these recent discoveries, the pentaquark family continues to expand, further enriching our understanding of exotic hadrons and providing new avenues for theoretical and experimental exploration in hadronic physics. A comprehensive review of the theoretical and experimental progress on both observed and candidate pentaquark states, as well as other exotic hadrons, can be found in Refs. [6–21].

In 2021, the LHCb Collaboration reported the observation of a new pentaquark state in the  $J/\psi p$  invariant mass distribution [22]. The resonance parameters of this newly observed  $P_c$  structure are different from those of the currently known pentaquark states reported in the  $\Lambda_b \rightarrow J/\psi p K$  decay by LHCb, which include  $P_c(4312)$ ,  $P_c(4440)$ , and  $P_c(4457)$ . For a detailed and comprehensive analysis of why this pentaquark state is observed in the  $B_s^0 \rightarrow J/\psi p p$  decay channel rather than in the  $\Lambda_b^0 \rightarrow J/\psi p K^-$  mode, we refer the reader to Ref. [23]. The measured mass and decay width of the  $P_c(4337)$  state are given as

Dergi Kategorisi:SCI-E, Q2



# OPTİSYENLİK PROGRAMI

## Makale

Optisyenlik Programı Öğretim Üyesi Doç. Dr. Ulaş ÖZDEM'in 'Insight into the nature of the  $P_c(4457)$  and related pentaquarks' adlı çalışması yayınlanmıştır.

## Article

An article by Assoc. Prof. Dr. Ulaş ÖZDEM, a faculty member of the Opticianry Program, titled "Insight into the nature of the  $P_c(4457)$  and related pentaquarks" has been published.



### Insight into the nature of the $P_c(4457)$ and related pentaquarks

Ulaş Özdem<sup>1,\*</sup>

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Istanbul Aydın University, Sefaköy-Kucukcekmece, 34295 Istanbul, Türkiye

We systematically study the electromagnetic properties of pentaquark states from different perspectives to better understand their nature, internal structure, and quantum numbers, determine their hadronization processes, and shed light on their true nature. The present study examines the magnetic moments of the  $P_c(4457)$  and related hidden-charm pentaquark states with and without strangeness ( $[dd][uc]\bar{c}$ ,  $[uu][sc]\bar{c}$ ,  $[dd][sc]\bar{c}$ ,  $[ss][uc]\bar{c}$  and  $[ss][dc]\bar{c}$ ), employing a comprehensive analysis that encompasses both the compact pentaquark configuration and  $J^P = \frac{3}{2}^-$  quantum numbers. The present study compares the results regarding the magnetic moment of the  $P_c(4457)$  pentaquark state with those reported in the existing literature. The numerical results obtained in this study, when considered alongside existing literature, indicate that the magnetic moments of hidden-charm pentaquark states may offer insights into their underlying structures, which in turn can inform the distinction between their spin-parity quantum numbers. It seems that for the future experimental search of the family of hidden-charm pentaquark states, studying the electromagnetic properties of the hidden-charm pentaquark states can provide valuable information.

### I. INTRODUCTION

The investigation of exotic states, such as tetraquarks, hybrids, glueballs, and pentaquarks, has become a prominent area of focus in hadron physics following the proposal of the quark model. Given that neither the quark model nor QCD prohibited their existence, these states attracted attention from the outset and were subjected to extensive investigation over an extended period. Ultimately, expectations were fulfilled by announcing the first discovery of such states in 2003, namely a tetraquark state,  $X(3872)$ , by the Belle Collaboration [1]. Subsequently, the number of observed exotic states increased and their diversity expanded, following the findings yielded by the aforementioned experimental discovery. A thorough investigation of these exotic states may yield substantial insights into the fundamental processes underlying the dynamics of strong interactions at low energies. In 2015, a novel member of the exotic states, namely the pentaquark state comprising five valence quarks, was reported to have been discovered by the LHCb Collaboration. The two states, designated as  $P_c(4380)^+$  and  $P_c(4450)^+$ , were confirmed through observation in the  $J/\psi + p$  decay channel [2]. In 2019, the analyses with a larger data sample yielded further insights. It was revealed that the previously reported  $P_c(4450)^+$  state had split into  $P_c(4440)^+$  and  $P_c(4457)^+$  states, and another pick,  $P_c(4312)^+$ , had also come into sight [3]. It should be noted that the pentaquark  $P_c(4380)^+$  reported in the previous analysis remains unresolved, neither confirmed nor refuted, in the subsequent analysis. The six-dimensional amplitude analysis presented in Ref. [2], which initially provided evidence for the  $P_c(4380)^+$  state, is now considered obsolete, as it included only a single  $P_c(4450)^+$  state and did not account for the  $P_c(4312)^+$  state. Consequently, the results presented in this Letter weaken the previously reported evidence for the  $P_c(4380)^+$  state; however, they do not contradict its existence, since the current one-dimensional analysis lacks sensitivity to broad  $P_c^+$  states. A future six-dimensional amplitude analysis of  $\Lambda_b \rightarrow J/\psi p K^-$  decays, incorporating the  $P_c(4440)^+$ ,  $P_c(4457)^+$ , and  $P_c(4312)^+$  states, will be essential to assess whether there is continuing evidence for the  $P_c(4380)^+$  state or any other broad  $P_c^+$  states. It is worth mentioning that Ref. [4] demonstrated evidence for a narrow  $\Sigma_c^+ D$  bound state in the  $J/\psi p$  invariant mass distribution data, which they refer to as  $P_c(4380)^+$  with spin-parity  $J^P = \frac{3}{2}^-$ , distinct from the broad structure reported by LHCb in 2015. In 2020, the LHCb Collaboration announced a pentaquark state,  $P_c(4459)^0$ , in the invariant mass spectrum of  $J/\psi \Lambda$  in the  $\Xi_b^0 \rightarrow J/\psi \Lambda K^-$  decay [5]. The measured mass and width are  $4458.8 \pm 2.7^{+4.7}_{-1.1}$  MeV and  $17.3 \pm 6.5^{+8.0}_{-5.2}$  MeV respectively. In 2022, the LHCb collaboration observed a new structure  $P_{cs}(4338)^0$  in the  $J/\psi \Lambda$  mass distribution in the  $B^- \rightarrow J/\psi \Lambda^- p$  decays [6]. The masses, widths, minimal valence quark contents, and observed channels for these states have been listed in Table I.

Dergi Kategorisi:SCI-E, Q2



# İLETİŞİM

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