

## Dr. Öğr. Üyesi VAEL HAJAHMAD

### Kişisel Bilgiler

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### Uluslararası Araştırmacı ID'leri

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Publons / Web Of Science ResearcherID: E-6738-2016

ScopusID: 35221758100

Yoksis Araştırmacı ID: 229544

### Eğitim Bilgileri

Doktora, Rheinisch-Westfaelische Technische Hochschule Aachen, III. Physikalisches Institut B, Physics / High Energy Physics, Almanya 2008 - 2013

Yüksek Lisans, Halep Üniversitesi, Faculty Of Sciences/ Department Of Physics, Physics / Radiation Physics, Suriye 2003 - 2004

Lisans, Halep Üniversitesi, Faculty Of Sciences/ Department Of Mathematics & Physics, Mathematics & Physics, Suriye 1999 - 2003

### Yabancı Diller

Almanca, C1 İleri

Türkçe, B2 Orta Üstü

İngilizce, C1 İleri

Arapça, C1 İleri

### Yaptığı Tezler

Doktora, Search for Top Quark Pair Resonances with the CMS Detector at the LHC, Rheinisch-Westfaelische Technische Hochschule Aachen, Faculty Of Mathematics, Informatics And Natural Sciences, Physics / High Energy & Particle Physics, 2013

Yüksek Lisans, Thickness Measurements of Thin Foils using Alpha Particles, Halep Üniversitesi, Faculty Of Sciences, Physics / Nuclear Physics, 2004

### Araştırma Alanları

Fizik, Nükleer Fizik, Parçacık fiziği ve nükleer fizikte deneysel yöntemler ve enstrümantasyon, Temel Parçacıklar ve Alanlar , Genel alan ve parçacık teorisi, Özel parçacıkların özellikleri, Özel reaksiyonlar ve fenomenoloji, Özel teoriler ve etkileşme modelleri, parçacık sistematığı, Temel Bilimler

## Akademik Unvanlar / Görevler

Dr. Öğr. Üyesi, Erzincan Binali Yıldırım Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2014 - Devam Ediyor  
Yrd. Doç. Dr., Erzincan Binali Yıldırım Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2014 - 2018

## Verdiği Dersler

Termodinamik ve İstatistik Fiziği, Lisans, 2019 - 2020  
KUANTUM FİZİĞİ II, Lisans, 2019 - 2020  
Temel Parçacıklar Fiziği, Lisans, 2019 - 2020  
BİLGİSAYAR UYGULAMALARI , Lisans, 2017 - 2018  
İleri Akademik İngilizce, Yüksek Lisans, 2017 - 2018  
TEMEL BİLGİ TEKNOLOJİLERİ KULLANIMI, Lisans, 2017 - 2018  
Veri Analizi ve Programlama (C++, Matlab, Mathematica), Yüksek Lisans, 2017 - 2018  
Temel Bilgisayar 2, Lisans, 2017 - 2018

## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Searches for Pair-Produced Multijet Resonances Using Data Scouting in Proton-Proton Collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review Letters, cilt.133, sa.20, 2024 (SCI-Expanded)
- II. **Search for Soft Unclustered Energy Patterns in Proton-Proton Collisions at 13 TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review Letters, cilt.133, sa.19, 2024 (SCI-Expanded)
- III. **Observation of double Formula Presented meson production in Formula Presented collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.110, sa.9, 2024 (SCI-Expanded)
- IV. **Performance of the CMS high-level trigger during LHC Run 2**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Benato L., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., et al.  
Journal of Instrumentation, cilt.19, sa.11, 2024 (SCI-Expanded)
- V. **Search for the Formula Presented Boson Decay to Formula Presented in Proton-Proton Collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review Letters, cilt.133, sa.16, 2024 (SCI-Expanded)
- VI. **Observation of Enhanced Long-Range Elliptic Anisotropies Inside High-Multiplicity Jets in pp Collisions at  $\sqrt{s} = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review Letters, cilt.133, sa.14, 2024 (SCI-Expanded)
- VII. **Observation of the  $\Lambda b^0 \rightarrow J/\psi \Xi^- K^+$  decay**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Valle A. E. D., Hussain P., et al.

European Physical Journal C, cilt.84, sa.10, 2024 (SCI-Expanded)

- VIII. **Search for production of a single vectorlike quark decaying to  $tH$  or  $tZ$  in the all-hadronic final state in  $pp$  collisions at [Formula presented]**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.110, sa.7, 2024 (SCI-Expanded)
- IX. **Measurement of differential  $ZZ + \text{jets}$  production cross sections in  $pp$  collisions at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Journal of High Energy Physics, cilt.2024, sa.10, 2024 (SCI-Expanded)
- X. **Searches for violation of Lorentz invariance in top quark pair production using dilepton events in 13 TeV proton-proton collisions**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.857, 2024 (SCI-Expanded)
- XI. **Measurement of the  $B_s^0 \rightarrow J/\psi K_S^0$  effective lifetime from proton-proton collisions at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.10, 2024 (SCI-Expanded)
- XII. **Search for Higgs boson pair production with one associated vector boson in proton-proton collisions at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Journal of High Energy Physics, cilt.2024, sa.10, 2024 (SCI-Expanded)
- XIII. **Search for bottom-type vectorlike quark pair production in dileptonic and fully hadronic final states in proton-proton collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.110, sa.5, 2024 (SCI-Expanded)
- XIV. **Search for a resonance decaying to a  $W$  boson and a photon in proton-proton collisions at  $s = 13$  TeV using leptonic  $W$  boson decays**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.9, 2024 (SCI-Expanded)
- XV. **Performance of the CMS electromagnetic calorimeter in  $pp$  collisions at  $\sqrt{s} = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Journal of Instrumentation, cilt.19, sa.9, 2024 (SCI-Expanded)
- XVI. **Performance of CMS muon reconstruction from proton-proton to heavy ion collisions**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Journal of Instrumentation, cilt.19, sa.9, 2024 (SCI-Expanded)
- XVII. **Measurement of Energy Correlators inside Jets and Determination of the Strong Coupling Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review Letters, cilt.133, sa.7, 2024 (SCI-Expanded)
- XVIII. **Measurement of multijet azimuthal correlations and determination of the strong coupling in proton-proton collisions at  $s=13$ TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.

European Physical Journal C, cilt.84, sa.8, 2024 (SCI-Expanded)

- XIX. **Multiplicity and transverse momentum dependence of charge-balance functions in pPb and PbPb collisions at LHC energies**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.8, 2024 (SCI-Expanded)
- XX. **Search for new physics in high-mass diphoton events from proton-proton collisions at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.8, 2024 (SCI-Expanded)
- XXI. **Search for long-lived particles decaying in the CMS muon detectors in proton-proton collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.110, sa.3, 2024 (SCI-Expanded)
- XXII. **Constraints on anomalous Higgs boson couplings from its production and decay using the WW channel in proton-proton collisions at  $s=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
European Physical Journal C, cilt.84, sa.8, 2024 (SCI-Expanded)
- XXIII. **Observation of the Formula Presented Meson and Suppression of Formula Presented States in Pb-Pb Collisions at Formula Presented**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., Jeitler M., et al.  
Physical Review Letters, cilt.133, sa.2, 2024 (SCI-Expanded)
- XXIV. **Search for Narrow Trijet Resonances in Proton-Proton Collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Physical Review Letters, cilt.133, sa.1, 2024 (SCI-Expanded)
- XXV. **Search for dark QCD with emerging jets in proton-proton collisions at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.7, 2024 (SCI-Expanded)
- XXVI. **Search for high-mass exclusive diphoton production with tagged protons in proton-proton collisions at Formula Presented**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.110, sa.1, 2024 (SCI-Expanded)
- XXVII. **Extracting the speed of sound in quark-gluon plasma with ultrarelativistic lead-lead collisions at the LHC**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Reports on Progress in Physics, cilt.87, sa.7, 2024 (SCI-Expanded)
- XXVIII. **Search for a scalar or pseudoscalar dilepton resonance produced in association with a massive vector boson or top quark-antiquark pair in multilepton events at  $\sqrt{s}=13$  TeV**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.110, sa.1, 2024 (SCI-Expanded)
- XXIX. **Search for long-lived heavy neutral leptons decaying in the CMS muon detectors in proton-proton collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M.,

- Hussain P., Jeitler M., et al.  
Physical Review D, cilt.110, sa.1, 2024 (SCI-Expanded)
- XXX. **Observation of the  $\Lambda_c^+$  decay and studies of the  $\Lambda_c^+$  baryon in proton-proton collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.110, sa.1, 2024 (SCI-Expanded)
- XXXI. **Search for ZZ and ZH production in the  $b\bar{b}b\bar{b}$  final state using proton-proton collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
European Physical Journal C, cilt.84, sa.7, 2024 (SCI-Expanded)
- XXXII. **Combination of Measurements of the Top Quark Mass from Data Collected by the ATLAS and CMS Experiments at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review Letters, cilt.132, sa.26, 2024 (SCI-Expanded)
- XXXIII. **Search for Baryon Number Violation in Top Quark Production and Decay Using Proton-Proton Collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review Letters, cilt.132, sa.24, 2024 (SCI-Expanded)
- XXXIV. **Nonresonant central exclusive production of charged-hadron pairs in proton-proton collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.109, sa.11, 2024 (SCI-Expanded)
- XXXV. **Search for the lepton flavor violating  $\tau \rightarrow 3\mu$  decay in proton-proton collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.853, 2024 (SCI-Expanded)
- XXXVI. **Combined search for electroweak production of winos, binos, higgsinos, and sleptons in proton-proton collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Physical Review D, cilt.109, sa.11, 2024 (SCI-Expanded)
- XXXVII. **Observation of the  $\Lambda_c^+$  decay in proton-proton collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.109, sa.11, 2024 (SCI-Expanded)
- XXXVIII. **Search for stealth supersymmetry in final states with two photons, jets, and low missing transverse momentum in proton-proton collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Del Valle A. E., Hussain P., et al.  
Physical Review D, cilt.109, sa.11, 2024 (SCI-Expanded)
- XXXIX. **Search for long-lived particles using displaced vertices and missing transverse momentum in proton-proton collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.109, sa.11, 2024 (SCI-Expanded)
- XL. **Search for pair production of scalar and vector leptoquarks decaying to muons and bottom quarks in proton-proton collisions at  $\sqrt{s}=13$  TeV**

Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.109, sa.11, 2024 (SCI-Expanded)

- XLII. **Search for long-lived particles decaying to final states with a pair of muons in proton-proton collisions at  $s = 13.6$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.5, 2024 (SCI-Expanded)
- XLIII. **Measurement of simplified template cross sections of the Higgs boson produced in association with  $w$  or  $z$  bosons in the Formula Presented decay channel in proton-proton collisions at Formula Presented**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., Jeitler M., et al.  
Physical Review D, cilt.109, sa.9, 2024 (SCI-Expanded)
- XLIV. **Search for  $W'$  bosons decaying to a top and a bottom quark in leptonic final states in proton-proton collisions at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Journal of High Energy Physics, cilt.2024, sa.5, 2024 (SCI-Expanded)
- XLV. **Search for a new resonance decaying into two spin-0 bosons in a final state with two photons and two bottom quarks in proton-proton collisions at (Formula presented.)**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.5, 2024 (SCI-Expanded)
- XLVI. **Development of the CMS detector for the CERN LHC Run 3**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Del Valle A. E., Hussain P., Jeitler M., et al.  
Journal of Instrumentation, cilt.19, sa.5, 2024 (SCI-Expanded)
- XLVII. **Measurement of the primary Lund jet plane density in proton-proton collisions at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Journal of High Energy Physics, cilt.2024, sa.5, 2024 (SCI-Expanded)
- XLVIII. **Search for exotic decays of the Higgs boson to a pair of pseudoscalars in the  $\mu\mu b\bar{b}$  and  $\tau\tau b\bar{b}$  final states**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Del Valle A. E., Hussain P., et al.  
European Physical Journal C, cilt.84, sa.5, 2024 (SCI-Expanded)
- XLIX. **Inclusive and differential cross section measurements of  $t\bar{t}b\bar{b}$  production in the lepton+jets channel at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Journal of High Energy Physics, cilt.2024, sa.5, 2024 (SCI-Expanded)
- L. **Search for supersymmetry in final states with disappearing tracks in proton-proton collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Physical Review D, cilt.109, sa.7, 2024 (SCI-Expanded)
- L. **Search for flavor changing neutral current interactions of the top quark in final states with a photon and additional jets in proton-proton collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.

Physical Review D, cilt.109, sa.7, 2024 (SCI-Expanded)

- LI. **New Structures in the Formula Presented Mass Spectrum in Proton-Proton Collisions at Formula Presented**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Physical Review Letters, cilt.132, sa.11, 2024 (SCI-Expanded)
- LII. **Search for dark matter particles in  $W+W^-$  events with transverse momentum imbalance in proton-proton collisions at  $s = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Journal of High Energy Physics, cilt.2024, sa.3, 2024 (SCI-Expanded)
- LIII. **Search for long-lived heavy neutral leptons with lepton flavour conserving or violating decays to a jet and a charged lepton**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.3, 2024 (SCI-Expanded)
- LIV. **Muon identification using multivariate techniques in the CMS experiment in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Journal of Instrumentation, cilt.19, sa.2, 2024 (SCI-Expanded)
- LV. **Two-particle Bose-Einstein correlations and their Lévy parameters in PbPb collisions at Formula Presented TeV**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., Jeitler M., et al.  
Physical Review C, cilt.109, sa.2, 2024 (SCI-Expanded)
- LVI. **Higher-order moments of the elliptic flow distribution in PbPb collisions at  $s_{NN} = 5.02$  TeV**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2024, sa.2, 2024 (SCI-Expanded)
- LVII. **Search for Inelastic Dark Matter in Events with Two Displaced Muons and Missing Transverse Momentum in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Del Valle A. E., Frühwirth R., et al.  
Physical Review Letters, cilt.132, sa.4, 2024 (SCI-Expanded)
- LVIII. **Evidence for the Higgs boson decay to a Z boson and a photon at the LHC**  
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.  
Physical Review Letters, cilt.132, sa.2, 2024 (SCI-Expanded)
- LIX. **Measurement of the production cross section for a W boson in association with a charm quark in proton-proton collisions at  $\sqrt{s}=13$ TeV**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Valle A. E. D., Hussain P., Jeitler M., et al.  
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- LX. **Luminosity determination using Z boson production at the CMS experiment**  
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- XCV. **Search for direct pair production of supersymmetric partners of  $\tau$  leptons in the final state with two hadronically decaying  $\tau$  leptons and missing transverse momentum in proton-proton collisions at Formula Presented**

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- XCV. **Observation of electroweak  $W+W^-$  pair production in association with two jets in proton-proton collisions at  $s=13$ TeV**

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- C. **Search for long-lived particles decaying to a pair of muons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**

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- CXXIV. **Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- CXXV. **Search for long-lived particles decaying into muon pairs in proton-proton collisions at  $\sqrt{s} = 13$  TeV collected with a dedicated high-rate data stream**  
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- CXXVI. **Search for supersymmetry in final states with two or three soft leptons and missing transverse momentum in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- CXXVII. **Search for electroweak production of charginos and neutralinos in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- CXXVIII. **Measurement of the inclusive  $t\bar{t}$  production cross section in proton-proton collisions at  $\sqrt{s} = 5.02$  TeV**  
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- CXXIX. **Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating nonresonant ZZ or ZH production at  $\sqrt{s} = 13$  TeV**  
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- CXXX. **Precision measurement of the W boson decay branching fractions in proton-proton collisions at  $s = 13$  TeV**  
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- CXXXI. **Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- CXXXIII. **Search for  $W\gamma$  resonances in proton-proton collisions at  $s = 13$  TeV using hadronic decays of Lorentz-boosted W bosons**  
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- CXXXIV. **Study of dijet events with large rapidity separation in proton-proton collisions at  $\sqrt{s} = 2.76$  TeV**  
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- CXXXV. **Search for long-lived particles produced in association with a Z boson in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- Journal of High Energy Physics, cilt.2022, sa.3, 2022 (SCI-Expanded)
- CXXXVI. **A new calibration method for charm jet identification validated with proton-proton collision events at  $\sqrt{s} = 13\text{TeV}$**   
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- CXXXVII. **Search for strongly interacting massive particles generating trackless jets in proton-proton collisions at  $\sqrt{s}=13\text{TeV}$**   
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- CXXXVIII. **Measurement of  $W\pm\gamma$  differential cross sections in proton-proton collisions at  $s = 13\text{ TeV}$  and effective field theory constraints**  
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- CXXXIX. **Measurement of the Inclusive and Differential Higgs Boson Production Cross Sections in the Decay Mode to a Pair of  $\tau$  Leptons in pp Collisions at  $s = 13\text{ TeV}$**   
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- CXLI. **Inclusive and differential cross section measurements of single top quark production in association with a Z boson in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$**   
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- CXLII. **Measurement and QCD analysis of double-differential inclusive jet cross sections in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$**   
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- CXLIII. **Search for heavy resonances decaying to WW, WZ, or WH boson pairs in a final state consisting of a lepton and a large-radius jet in proton-proton collisions at  $s = 13\text{ TeV}$**   
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- CXLIV. **Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at  $\sqrt{s}=13\text{TeV}$**   
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- CXLV. **Evidence for X(3872) in Pb-Pb Collisions and Studies of its Prompt Production at  $s_{NN} = 5.02\text{ TeV}$**   
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- CXLVII. **Study of quark and gluon jet substructure in Z+jet and dijet events from pp collisions**  
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- CXLVIII. **Search for Long-Lived Particles Decaying in the CMS End Cap Muon Detectors in Proton-Proton Collisions at  $s = 13$  TeV**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., et al.  
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- CXLIX. **Search for a heavy resonance decaying to a top quark and a W boson at  $\sqrt{s} = 13$  TeV in the fully hadronic final state**  
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- CL. **Measurement of the inclusive and differential  $t \bar{t} \gamma$  cross sections in the single-lepton channel and EFT interpretation at  $\sqrt{s} = 13$  TeV**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., et al.  
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- CLI. **Probing effective field theory operators in the associated production of top quarks with a Z boson in multilepton final states at  $\sqrt{s} = 13$  TeV**  
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- CLII. **Measurement of the top quark mass using events with a single reconstructed top quark in pp collisions at  $\sqrt{s} = 13$  TeV**  
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- CLIII. **Measurements of the Electroweak Diboson Production Cross Sections in Proton-Proton Collisions at  $s = 5.02$  TeV Using Leptonic Decays**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., et al.  
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- CLIV. **Search for new particles in events with energetic jets and large missing transverse momentum in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- CLV. **Observation of  $tW$  production in the single-lepton channel in pp collisions at  $\sqrt{s} = 13$  TeV**  
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- CLVI. **Measurement of differential  $t \bar{t} \gamma$  production cross sections in the full kinematic range using lepton+jets events from proton-proton collisions at  $s = 13$  TeV MEASUREMENT of DIFFERENTIAL ... A. TUMASYAN et al.**  
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- CLVII. **Measurement of prompt open-charm production cross sections in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- CLVIII. **Search for a heavy Higgs boson decaying into two lighter Higgs bosons in the  $\tau\tau b\bar{b}$  final state at 13 TeV**  
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- CLIX. **Study of Z boson plus jets events using variables sensitive to double-parton scattering in pp collisions at 13 TeV**  
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- CLX. **Measurement of the electroweak production of  $Z\gamma$  and two jets in proton-proton collisions at  $s = 13$  TeV and constraints on anomalous quartic gauge couplings**  
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., et al.  
Physical Review D, cilt.104, sa.7, 2021 (SCI-Expanded)
- CLXI. **Search for chargino-neutralino production in events with Higgs and W bosons using 137 fb<sup>-1</sup> of proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- CLXII. **Measurements of the  $pp \rightarrow W^\pm \gamma\gamma$  and  $pp \rightarrow Z\gamma\gamma$  cross sections at  $\sqrt{s} = 13$  TeV and limits on anomalous quartic gauge couplings**  
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- CLXIII. **Observation of Forward Neutron Multiplicity Dependence of Dimuon Acoplanarity in Ultraperipheral Pb-Pb Collisions at  $s_{NN} = 5.02$  TeV**  
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- CLXIV. **First measurement of the cross section for top quark pair production with additional charm jets using dileptonic final states in pp collisions at  $s = 13$  TeV**  
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Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.820, 2021 (SCI-Expanded)
- CLXV. **Search for  $W'$  bosons decaying to a top and a bottom quark at  $s = 13$  TeV in the hadronic final state**  
Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.  
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- CLXVI. **Constraints on the Initial State of Pb-Pb Collisions via Measurements of Z -Boson Yields and Azimuthal Anisotropy at  $s_{NN} = 5.02$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.  
Physical Review Letters, cilt.127, sa.10, 2021 (SCI-Expanded)
- CLXVII. **Constraints on anomalous Higgs boson couplings to vector bosons and fermions in its production**

**and decay using the four-lepton final state**

Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.

Physical Review D, cilt.104, sa.5, 2021 (SCI-Expanded)

**CLXVIII. Search for top squark production in fully hadronic final states in proton-proton collisions at  $s = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.

Physical Review D, cilt.104, sa.5, 2021 (SCI-Expanded)

**CLXIX. Search for long-lived particles decaying to jets with displaced vertices in proton-proton collisions at  $s = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., Lechner L., et al.

Physical Review D, cilt.104, sa.5, 2021 (SCI-Expanded)

**CLXX. Search for singly and pair-produced leptoquarks coupling to third-generation fermions in proton-proton collisions at  $s = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.819, 2021 (SCI-Expanded)

**CLXXI. Search for the rare decay of the W boson into a pion and a photon in proton-proton collisions at  $s = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.819, 2021 (SCI-Expanded)

**CLXXII. Measurement of the azimuthal anisotropy of [Formula presented] and [Formula presented] mesons in PbPb collisions at  $s_{NN} = 5.02$  TeV**

Sirunyan A., Tumasyan A., Adam W., Ambrogio F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., Frühwirth R., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.819, 2021 (SCI-Expanded)

**CLXXIII. Search for lepton-flavor violating decays of the Higgs boson in the  $\mu\tau$  and  $e\tau$  final states in proton-proton collisions at  $s = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.

Physical Review D, cilt.104, sa.3, 2021 (SCI-Expanded)

**CLXXIV. Hard color-singlet exchange in dijet events in proton-proton collisions at  $s = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Ambrogio F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.

Physical Review D, cilt.104, sa.3, 2021 (SCI-Expanded)

**CLXXV. Search for top squarks in final states with two top quarks and several light-flavor jets in proton-proton collisions at  $s = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.

Physical Review D, cilt.104, sa.3, 2021 (SCI-Expanded)

**CLXXVI. Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at  $\sqrt{s} = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.

Journal of High Energy Physics, cilt.2021, sa.7, 2021 (SCI-Expanded)

**CLXXVII. Search for long-lived particles using displaced jets in proton-proton collisions at  $s = 13$  TeV**

Sirunyan A., Tumasyan A., Adam W., Ambrogio F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.

- Physical Review D, cilt.104, sa.1, 2021 (SCI-Expanded)
- CLXXVIII. **Search for resonant and nonresonant new phenomena in high-mass dilepton final states at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2021, sa.7, 2021 (SCI-Expanded)
- CLXXIX. **Performance of the CMS muon trigger system in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., Lechner L., et al.  
Journal of Instrumentation, cilt.16, sa.7, 2021 (SCI-Expanded)
- CLXXX. **Observation of a New Excited Beauty Strange Baryon Decaying to  $\Xi_b^- \pi^+ \pi^-$**   
Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.  
Physical Review Letters, cilt.126, sa.25, 2021 (SCI-Expanded)
- CLXXXI. **Measurement of the  $W\gamma$  Production Cross Section in Proton-Proton Collisions at  $s = 13$  TeV and Constraints on Effective Field Theory Coefficients**  
Sirunyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.  
Physical Review Letters, cilt.126, sa.25, 2021 (SCI-Expanded)
- CLXXXII. **Measurement of the CP-violating phase  $\phi_s$  in the  $B_s^0 \rightarrow J/\psi \phi(1020) \rightarrow \mu^+ \mu^- K^+ K^-$  channel in proton-proton collisions at  $s = 13$  TeV**  
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Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.816, 2021 (SCI-Expanded)
- CLXXXIII. **Measurement of prompt  $D^0$  and  $D^{*0}$  meson azimuthal anisotropy and search for strong electric fields in PbPb collisions at  $s_{NN} = 5.02$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogio F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.816, 2021 (SCI-Expanded)
- CLXXXIV. **Electron and photon reconstruction and identification with the CMS experiment at the CERN LHC**  
Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Escalante Del Valle A., Frühwirth R., Jeitler M., Krammer N., Lechner L., et al.  
Journal of Instrumentation, cilt.16, sa.5, 2021 (SCI-Expanded)
- CLXXXV. **Measurements of the differential cross sections of the production of  $Z + \text{jets}$  and  $\gamma + \text{jets}$  and of  $Z$  boson emission collinear with a jet in pp collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogio F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.  
Journal of High Energy Physics, cilt.2021, sa.5, 2021 (SCI-Expanded)
- CLXXXVI. **Measurement of the  $Z$  boson differential production cross section using its invisible decay mode ( $Z \rightarrow \nu\bar{\nu}$ ) in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
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- CCLI. **A search for the standard model Higgs boson decaying to charm quarks**  
 Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Dragicevic M., Eroe J., Del Valle A. E., Flechl M., Frühwirth R., et al.  
 JOURNAL OF HIGH ENERGY PHYSICS, cilt.2020, sa.3, 2020 (SCI-Expanded)
- CCLII. **Measurement of top quark pair production in association with a Z boson in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$**   
 Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
 Journal of High Energy Physics, cilt.2020, sa.3, 2020 (SCI-Expanded)
- CCLIII. **Search for new neutral Higgs bosons through the  $H \rightarrow ZA \rightarrow \ell+\ell-b\bar{b}$  process in pp collisions at  $\sqrt{s} = 13\text{ TeV}$**   
 Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
 Journal of High Energy Physics, cilt.2020, sa.3, 2020 (SCI-Expanded)
- CCLIV. **Search for lepton flavour violating decays of a neutral heavy Higgs boson to  $\mu\tau$  and  $e\tau$  in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$**

- Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2020, sa.3, 2020 (SCI-Expanded)
- CCLV. **Search for supersymmetry in pp collisions at  $\sqrt{s} = 13$  TeV with 137 fb<sup>-1</sup> in final states with a single lepton using the sum of masses of large-radius jets**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., Frühwirth R., et al.  
Physical Review D, cilt.101, sa.5, 2020 (SCI-Expanded)
- CCLVI. **Search for a heavy pseudoscalar Higgs boson decaying into a 125 GeV Higgs boson and a Z boson in final states with two tau and two light leptons at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2020, sa.3, 2020 (SCI-Expanded)
- CCLVII. **Search for physics beyond the standard model in multilepton final states in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., Frühwirth R., et al.  
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- CCLVIII. **Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2020, sa.3, 2020 (SCI-Expanded)
- CCLIX. **Search for a heavy Higgs boson decaying to a pair of W bosons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2020, sa.3, 2020 (SCI-Expanded)
- CCLX. **Combined search for supersymmetry with photons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.801, 2020 (SCI-Expanded)
- CCLXI. **Measurement of the top quark pair production cross section in dilepton final states containing one  $\tau$  lepton in pp collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2020, sa.2, 2020 (SCI-Expanded)
- CCLXII. **Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Dragicevic M., Ero J., Del Valle A. E., Flechl M., Fruehwirth R., et al.  
JOURNAL OF INSTRUMENTATION, cilt.15, sa.2, 2020 (SCI-Expanded)
- CCLXIII. **Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Del Valle A. E., Flechl M., et al.  
European Physical Journal C, cilt.80, sa.2, 2020 (SCI-Expanded)
- CCLXIV. **Search for top squark pair production in a final state with two tau leptons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.

- Journal of High Energy Physics, cilt.2020, sa.2, 2020 (SCI-Expanded)
- CCLXV. **Search for Supersymmetry with a Compressed Mass Spectrum in Events with a Soft  $\tau$  Lepton, a Highly Energetic Jet, and Large Missing Transverse Momentum in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physical review letters, cilt.124, sa.4, ss.41803, 2020 (SCI-Expanded)
- CCLXVI. **Search for a charged Higgs boson decaying into top and bottom quarks in events with electrons or muons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2020, sa.1, 2020 (SCI-Expanded)
- CCLXVII. **Search for electroweak production of a vector-like T quark using fully hadronic final states**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2020, sa.1, 2020 (SCI-Expanded)
- CCLXVIII. **W+W- boson pair production in proton-proton collisions at  $s = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Dragicevic M., Erö J., Escalante Del Valle A., Frühwirth R., Jeitler M., et al.  
Physical Review D, cilt.102, sa.9, 2020 (SCI-Expanded)
- CCLXIX. **Evidence for WW production from double-parton interactions in proton-proton collisions at  $\sqrt{s}=13$ TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
European Physical Journal C, cilt.80, sa.1, 2020 (SCI-Expanded)
- CCLXX. **Search for low mass vector resonances decaying into quark-antiquark pairs in proton-proton collisions at  $s = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physical Review D, cilt.100, sa.11, 2019 (SCI-Expanded)
- CCLXXI. **Search for Physics beyond the Standard Model in Events with Overlapping Photons and Jets**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physical Review Letters, cilt.123, sa.24, 2019 (SCI-Expanded)
- CCLXXII. **Study of the  $B \rightarrow J / \psi \Lambda \bar{p}$  decay in proton-proton collisions at  $\sqrt{s} = 8$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2019, sa.12, 2019 (SCI-Expanded)
- CCLXXIII. **Measurements of differential Z boson production cross sections in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
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- CCLXXIV. **Search for long-lived particles using delayed photons in proton-proton collisions at root  $s=13$  TeV**  
Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Del Valle A. E., Flechl M., et al.  
PHYSICAL REVIEW D, cilt.100, sa.11, 2019 (SCI-Expanded)
- CCLXXV. **Combination of CMS searches for heavy resonances decaying to pairs of bosons or leptons**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.798, 2019 (SCI-Expanded)

- CCLXXVI. **Measurement of the top quark Yukawa coupling from  $t\bar{t}$  kinematic distributions in the lepton+jets final state in proton-proton collisions at  $s = 13$  TeV** MEASUREMENT of the TOP QUARK YUKAWA COUPLING from ... SIRUNYAN et al.  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physical Review D, cilt.100, sa.7, 2019 (SCI-Expanded)
- CCLXXVII. **Search for Higgs and Z boson decays to  $J/\psi$  or  $Y$  pairs in the four-muon final state in proton-proton collisions at  $s = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.797, 2019 (SCI-Expanded)
- :CLXXVIII. **Search for long-lived particles using nonprompt jets and missing transverse momentum with proton-proton collisions at  $s = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
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- CCLXXIX. **Search for pair production of vectorlike quarks in the fully hadronic final state**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physical Review D, cilt.100, sa.7, 2019 (SCI-Expanded)
- CCLXXX. **Search for supersymmetry in proton-proton collisions at 13 TeV in final states with jets and missing transverse momentum**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2019, sa.10, 2019 (SCI-Expanded)
- CCLXXXI. **Search for dark photons in decays of Higgs bosons produced in association with Z bosons in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2019, sa.10, 2019 (SCI-Expanded)
- CCLXXXII. **Search for resonances decaying to a pair of Higgs bosons in the  $b\bar{b} \rightarrow q\bar{q} \ell\bar{\nu}$  final state in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Journal of High Energy Physics, cilt.2019, sa.10, 2019 (SCI-Expanded)
- :CLXXXIII. **Search for vectorlike leptons in multilepton final states in proton-proton collisions at  $s = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physical Review D, cilt.100, sa.5, 2019 (SCI-Expanded)
- :CLXXXIV. **Search for the production of  $W_{\pm}W_{\pm}W$  events at  $s = 13$  TeV**  
Sirunyan A., Tumasyan A., Adam W., Ambrogi F., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Escalante Del Valle A., Flechl M., et al.  
Physical Review D, cilt.100, sa.1, 2019 (SCI-Expanded)
- CCLXXXV. **Search for leptophobic  $Z'$  bosons decaying into four-lepton final states in proton-proton collisions at  $s = 8$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
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- :CLXXXVI. **Measurement of the differential inclusive  $B^+$  hadron cross sections in pp collisions at  $s = 13$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic

M., Erö J., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.771, ss.435-456, 2017 (SCI-Expanded)

- CLXXXVII. **Measurement of the mass difference between top quark and antiquark in pp collisions at  $s=8$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.770, ss.50-71, 2017 (SCI-Expanded)
- LXXXVIII. **Measurement of electroweak-induced production of  $W\gamma$  with two jets in pp collisions at  $\sqrt{s}=8$  TeV and constraints on anomalous quartic gauge couplings**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Journal of High Energy Physics, cilt.2017, sa.6, 2017 (SCI-Expanded)
- LXXXIX. **Search for narrow resonances in dilepton mass spectra in proton-proton collisions at  $s=13$  TeV and combination with 8 TeV data**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.768, ss.57-80, 2017 (SCI-Expanded)
- CCXC. **Search for electroweak production of charginos in final states with two  $\tau$  leptons in pp collisions at  $\sqrt{s}=8$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Journal of High Energy Physics, cilt.2017, sa.4, 2017 (SCI-Expanded)
- CCXCI. **Measurement of the WZ production cross section in pp collisions at  $s=13$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.766, ss.268-290, 2017 (SCI-Expanded)
- CCXCII. **Measurements of differential cross sections for associated production of a W boson and jets in proton-proton collisions at  $s=8$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Physical Review D, cilt.95, sa.5, 2017 (SCI-Expanded)
- CCXCIII. **Evidence for collectivity in pp collisions at the LHC**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.765, ss.193-220, 2017 (SCI-Expanded)
- CCXCIV. **Search for anomalous  $Wtb$  couplings and flavour-changing neutral currents in t-channel single top quark production in pp collisions at  $\sqrt{s}=7$  and 8 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Journal of High Energy Physics, cilt.2017, sa.2, 2017 (SCI-Expanded)
- CCXCV. **Search for supersymmetry in events with one lepton and multiple jets in proton-proton collisions at  $s=13$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Physical Review D, cilt.95, sa.1, 2017 (SCI-Expanded)
- CCXCVI. **Search for R-parity violating supersymmetry with displaced vertices in proton-proton collisions at  $s=8$  TeV**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

Physical Review D, cilt.95, sa.1, 2017 (SCI-Expanded)

**CCXCVII. Observation of the decay  $B^+ \rightarrow \psi(2S)\phi(1020)K^+$  in pp collisions at  $s=8\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.764, ss.66-86, 2017 (SCI-Expanded)

**CCXCVIII. Inclusive search for supersymmetry using razor variables in pp collisions at  $s = 13\text{ TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

Physical Review D, cilt.95, sa.1, 2017 (SCI-Expanded)

**CCXCIX. Measurement of the ZZ production cross section and  $Z \rightarrow \ell+\ell-\ell'+\ell'-$  branching fraction in pp collisions at  $s=13\text{ TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.763, ss.280-303, 2016 (SCI-Expanded)

**CCC. Studies of inclusive four-jet production with two b -tagged jets in proton-proton collisions at 7 TeV  
STUDIES of INCLUSIVE FOUR-JET PRODUCTION with ... V. KHACHATRYAN et al.**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

Physical Review D, cilt.94, sa.11, 2016 (SCI-Expanded)

**CCCI. Measurement of the mass of the top quark in decays with a  $J/\psi$  meson in pp collisions at 8 TeV**

The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.

Journal of High Energy Physics, cilt.2016, sa.12, 2016 (SCI-Expanded)

**CCCII. Search for new physics in final states with two opposite-sign, same-flavor leptons, jets, and missing transverse momentum in pp collisions at  $\sqrt{s} = 13\text{ TeV}$**

The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.

Journal of High Energy Physics, cilt.2016, sa.12, 2016 (SCI-Expanded)

**CCCIII. Search for dark matter in proton-proton collisions at 8 TeV with missing transverse momentum and vector boson tagged jets**

The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.

Journal of High Energy Physics, cilt.2016, sa.12, 2016 (SCI-Expanded)

**CCCIV. Decomposing transverse momentum balance contributions for quenched jets in PbPb collisions at  $\sqrt{s_{NN}}=2.76\text{ TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

Journal of High Energy Physics, cilt.2016, sa.11, 2016 (SCI-Expanded)

**CCCIV. Search for new physics in same-sign dilepton events in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

European Physical Journal C, cilt.76, sa.8, 2016 (SCI-Expanded)

**CCCVI. Search for Resonant Production of High-Mass Photon Pairs in Proton-Proton Collisions at  $s = 8$  and  $13\text{ TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

Physical Review Letters, cilt.117, sa.5, 2016 (SCI-Expanded)

- CCCVII. **Search for pair-produced vectorlike B quarks in proton-proton collisions at  $s = 8$  TeV**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
 Physical Review D, cilt.93, sa.11, 2016 (SCI-Expanded)
- CCCVIII. **Measurement of the ratio  $B(Bs_0 \rightarrow J/\psi f_0(980))/B(Bs_0 \rightarrow J/\psi \phi(1020))$  in pp collisions at  $\sqrt{s}=7$  TeV**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
 Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.756, ss.84-102, 2016 (SCI-Expanded)
- CCCIX. **Search for new phenomena in monophoton final states in proton-proton collisions at  $s=8$  TeV**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
 Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.755, ss.102-124, 2016 (SCI-Expanded)
- CCCX. **Search for single production of scalar leptoquarks in proton-proton collisions at  $s = 8$  TeV**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
 Physical Review D, cilt.93, sa.3, 2016 (SCI-Expanded)
- CCCXI. **Search for a massive resonance decaying into a higgs boson and a W or Z boson in hadronic final states in proton-proton collisions at (Formula presented) = 8 TeV**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Flechl M., et al.  
 Journal of High Energy Physics, cilt.2016, sa.2, ss.1-41, 2016 (SCI-Expanded)
- CCCXII. **Search for  $W' \rightarrow tb$  in proton-proton collisions at  $\sqrt{s} = 8$  TeV**  
 The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.  
 Journal of High Energy Physics, cilt.2016, sa.2, ss.1-42, 2016 (SCI-Expanded)
- CCCXIII. **Search for neutral MSSM Higgs bosons decaying to  $\mu+\mu^-$  in pp collisions at  $\sqrt{s}=7$  and 8 TeV**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
 Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.752, ss.221-246, 2016 (SCI-Expanded)
- CCCXIV. **A search for pair production of new light bosons decaying into muons**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
 Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.752, ss.146-168, 2016 (SCI-Expanded)
- CCCXV. **Search for resonant  $t t^-$  production in proton-proton collisions at  $s = 8$  TeV SEARCH for RESONANT  $t t^-$  PRODUCTION in ... V. KHACHATRYAN et al.**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
 Physical Review D, cilt.93, sa.1, 2016 (SCI-Expanded)
- CCCXVI. **Search for long-lived charged particles in proton-proton collisions at  $\sqrt{s} = 13$  TeV**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
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- CCCXVII. **Production of leading charged particles and leading charged-particle jets at small transverse momenta in pp collisions at  $s = 8$  TeV**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXVIII. **Angular coefficients of Z bosons produced in pp collisions at s=8 TeV and decaying to  $\mu+\mu^-$  as a function of transverse momentum and rapidity**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXIX. **Search for diphoton resonances in the mass range from 150 to 850 GeV in pp collisions at s=8TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
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- CCCXX. **Study of W boson production in pPb collisions at sNN=5.02 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXXI. **Measurement of the differential cross section for top quark pair production in pp collisions at  $\sqrt{s}=8$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
European Physical Journal C, cilt.75, sa.11, ss.1-39, 2015 (SCI-Expanded)
- CCCXXII. **Search for supersymmetry with photons in pp collisions at s =8TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
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- CCCXXIII. **Search for resonant pair production of Higgs bosons decaying to two bottom quark-antiquark pairs in proton-proton collisions at 8 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXXIV. **Search for lepton-flavour-violating decays of the Higgs boson**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXXV. **Measurements of the  $\Upsilon(1S)$ ,  $\Upsilon(2S)$ , and  $\Upsilon(3S)$  differential cross sections in pp collisions at s=7TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXXVI. **Measurement of the Z boson differential cross section in transverse momentum and rapidity in proton-proton collisions at 8 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXXVII. **Comparison of the  $Z/\gamma^* + \text{jets}$  to  $\gamma + \text{jets}$  cross sections in pp collisions at (Formula presented.) TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.

- Journal of High Energy Physics, cilt.2015, sa.10, ss.1-46, 2015 (SCI-Expanded)
- :CCXXVIII. **Search for a Higgs boson in the mass range from 145 to 1000 GeV decaying to a pair of W or Z bosons**  
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.  
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- CCCXXIX. **Measurements of the ZZ production cross sections in the 2l2ν channel in proton–proton collisions at  $\sqrt{s} = 7$  and 8 TeV and combined constraints on triple gauge couplings**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXXX. **Evidence for transverse-momentum- and pseudorapidity-dependent event-plane fluctuations in PbPb and p Pb collisions**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Dragicevic M., Erö J., Flechl M., et al.  
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- CCCXXXI. **Search for narrow high-mass resonances in proton–proton collisions at  $s=8$  TeV decaying to a Z and a Higgs boson**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCXXXII. **Search for a pseudoscalar boson decaying into a Z boson and the 125 GeV Higgs boson in  $\ell+\ell-bb^-$  final states**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Erö J., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.748, ss.221-243, 2015 (SCI-Expanded)
- :CCXXXIII. **Search for neutral color-octet weak-triplet scalar particles in proton-proton collisions at  $\sqrt{s}= 8\text{TeV}$**   
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.  
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- :CCXXXIV. **Performance of photon reconstruction and identification with the CMS detector in proton-proton collisions at  $s = 8$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Journal of Instrumentation, cilt.10, sa.8, 2015 (SCI-Expanded)
- CCCXXXV. **Search for pair-produced resonances decaying to jet pairs in proton–proton collisions at  $s=8$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.747, ss.98-119, 2015 (SCI-Expanded)
- :CCXXXVI. **Constraints on the pMSSM, AMSB model and on other models from the search for long-lived charged particles in proton–proton collisions at  $\sqrt{s} = 8$  TeV**  
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- CCXXXVII. **Search for third-generation scalar leptoquarks in the tt channel in proton-proton collisions at  $\sqrt{s}=8$  TeV**  
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.

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:CXXXVIII. **Constraints on the spin-parity and anomalous HVV couplings of the Higgs boson in proton collisions at 7 and 8 TeV**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.

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:CCXXXIX. **Measurement of diffractive dissociation cross sections in pp collisions at  $\sqrt{s}=7\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.

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CCCXL. **Distributions of topological observables in inclusive three- and four-jet events in pp collisions at  $\sqrt{s}=7\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.

European Physical Journal C, cilt.75, sa.7, 2015 (SCI-Expanded)

CCCXLI. **Search for heavy Majorana neutrinos in  $\mu\pm\mu\pm + \text{jets}$  events in proton-proton collisions at  $s=8\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.748, ss.144-166, 2015 (SCI-Expanded)

CCCXLII. **Measurement of the cross section ratio  $\sigma_{t\bar{t}b\bar{b}}/\sigma_{t\bar{t}j\bar{j}}$  in pp collisions at  $s=8\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.746, ss.132-153, 2015 (SCI-Expanded)

CCCXLIII. **Search for quark contact interactions and extra spatial dimensions using dijet angular distributions in proton-proton collisions at  $s=8\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.

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CCCXLIV. **Evidence for Collective Multiparticle Correlations in p-Pb Collisions**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.

Physical Review Letters, cilt.115, sa.1, 2015 (SCI-Expanded)

CCCXLV. **Search for vector-like T quarks decaying to top quarks and Higgs bosons in the all-hadronic channel using jet substructure**

The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., et al.

Journal of High Energy Physics, cilt.2015, sa.6, 2015 (SCI-Expanded)

CCCXLVI. **Constraints on parton distribution functions and extraction of the strong coupling constant from the inclusive jet cross section in pp collisions at  $\sqrt{s}=7\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.

European Physical Journal C, cilt.75, sa.6, 2015 (SCI-Expanded)

CCCXLVII. **Search for a standard model Higgs boson produced in association with a top-quark pair and decaying to bottom quarks using a matrix element method**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.

European Physical Journal C, cilt.75, sa.6, 2015 (SCI-Expanded)

:CCXLVIII. **Observation of the rare  $B_0 \rightarrow \mu^+\mu^-$  decay from the combined analysis of CMS and LHCb data**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Nature, cilt.522, sa.7554, ss.68-72, 2015 (SCI-Expanded)

- CCCXLIX. **Searches for third-generation squark production in fully hadronic final states in proton-proton collisions at (Formula Presented.) TeV**  
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.  
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- CCCL. **Search for the production of dark matter in association with top-quark pairs in the single-lepton final state in proton-proton collisions at  $\sqrt{s}= 8\text{TeV}$**   
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., et al.  
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- CCCLI. **Performance of electron reconstruction and selection with the CMS detector in proton-proton collisions at  $\sqrt{s} = 8 \text{ TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Journal of Instrumentation, cilt.10, sa.6, 2015 (SCI-Expanded)
- CCCLII. **Study of final-state radiation in decays of Z bosons produced in pp collisions at 7 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCLIII. **Precise determination of the mass of the Higgs boson and tests of compatibility of its couplings with the standard model predictions using proton collisions at 7 and 8 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
European Physical Journal C, cilt.75, sa.5, 2015 (SCI-Expanded)
- CCCLIV. **Searches for supersymmetry using the MT2 variable in hadronic events produced in pp collisions at 8 TeV**  
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., et al.  
Journal of High Energy Physics, cilt.2015, sa.5, 2015 (SCI-Expanded)
- CCCLV. **Search for physics beyond the standard model in final states with a lepton and missing transverse energy in proton-proton collisions at  $s=8 \text{ TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
Physical Review D - Particles, Fields, Gravitation and Cosmology, cilt.91, sa.9, 2015 (SCI-Expanded)
- CCCLVI. **Searches for supersymmetry based on events with b jets and four W bosons in pp collisions at 8 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCLVII. **Measurement of  $J/\psi$  and  $\psi(2S)$  prompt double-differential cross sections in pp collisions at  $s = 7\text{TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
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- CCCLVIII. **Combined Measurement of the Higgs Boson Mass in pp Collisions at  $s = 7$  and 8 TeV with the ATLAS and CMS Experiments**  
Aad G., Abbott B., Abdallah J., Abdinov O., Aben R., Abolins M., Abouzeid O., Abramowicz H., Abreu H., Abreu R., et al.  
Physical Review Letters, cilt.114, sa.19, 2015 (SCI-Expanded)

- CCCLIX. **Search for a standard model-like Higgs boson in the  $\mu+\mu^-$  and  $e+e^-$  decay channels at the LHC**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.744, ss.184-207, 2015 (SCI-Expanded)
- CCCLX. **Search for dark matter, extra dimensions, and unparticles in monojet events in proton–proton collisions at  $\sqrt{s} = 8$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
European Physical Journal C, cilt.75, sa.5, 2015 (SCI-Expanded)
- CCCLXI. **Nuclear effects on the transverse momentum spectra of charged particles in pPb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
European Physical Journal C, cilt.75, sa.5, 2015 (SCI-Expanded)
- CCCLXII. **Measurement of the inclusive 3-jet production differential cross section in proton–proton collisions at 7 TeV and determination of the strong coupling constant in the TeV range**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
European Physical Journal C, cilt.75, sa.5, ss.1-24, 2015 (SCI-Expanded)
- CCCLXIII. **Search for stealth supersymmetry in events with jets, either photons or leptons, and low missing transverse momentum in pp collisions at 8 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.743, ss.503-525, 2015 (SCI-Expanded)
- CCCLXIV. **Measurements of differential and double-differential Drell–Yan cross sections in proton–proton collisions at  $\sqrt{s} = 8$  TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
European Physical Journal C, cilt.75, sa.4, ss.1-27, 2015 (SCI-Expanded)
- CCCLXV. **Search for physics beyond the standard model in dilepton mass spectra in proton-proton collisions at  $\sqrt{s}=8$  TeV**  
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., et al.  
Journal of High Energy Physics, cilt.2015, sa.4, ss.1-49, 2015 (SCI-Expanded)
- CCCLXVI. **Measurement of the  $Z\gamma$  production cross section in pp collisions at 8 TeV and search for anomalous triple gauge boson couplings**  
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., et al.  
Journal of High Energy Physics, cilt.2015, sa.4, 2015 (SCI-Expanded)
- CCCLXVII. **Search for decays of stopped long-lived particles produced in proton–proton collisions at  $\sqrt{s}= 8$ , TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
European Physical Journal C, cilt.75, sa.4, ss.1-22, 2015 (SCI-Expanded)
- CCCLXVIII. **Search for physics beyond the standard model in events with two leptons, jets, and missing transverse momentum in pp collisions at  $\sqrt{s}= 8$  TeV**  
The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., et al.  
Journal of High Energy Physics, cilt.2015, sa.4, 2015 (SCI-Expanded)

- CCCLXIX. **Search for supersymmetry using razor variables in events with b -tagged jets in pp collisions at  $s = 8\text{TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Physical Review D - Particles, Fields, Gravitation and Cosmology, cilt.91, sa.5, 2015 (SCI-Expanded)
- CCCLXX. **Search for long-lived particles that decay into final states containing two electrons or two muons in proton-proton collisions at  $s = 8\text{TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Physical Review D - Particles, Fields, Gravitation and Cosmology, cilt.91, sa.5, 2015 (SCI-Expanded)
- CCCLXXI. **Search for resonances and quantum black holes using dijet mass spectra in proton-proton collisions at  $s = 8\text{TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Physical Review D - Particles, Fields, Gravitation and Cosmology, cilt.91, sa.5, 2015 (SCI-Expanded)
- CCCLXXII. **Measurements of jet multiplicity and differential production cross sections of Z+jets events in proton-proton collisions at  $s = 7\text{TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
Physical Review D - Particles, Fields, Gravitation and Cosmology, cilt.91, sa.5, 2015 (SCI-Expanded)
- :CCLXXIII. **Search for monotop signatures in proton-proton collisions at  $s = 8\text{TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
Physical Review Letters, cilt.114, sa.10, 2015 (SCI-Expanded)
- :CCLXXIV. **Long-range two-particle correlations of strange hadrons with charged particles in pPb and PbPb collisions at LHC energies**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.742, ss.200-224, 2015 (SCI-Expanded)
- CCCLXXV. **Search for displaced supersymmetry in events with an electron and a muon with large impact parameters**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Physical Review Letters, cilt.114, sa.6, 2015 (SCI-Expanded)
- :CCLXXVI. **Performance of the CMS missing transverse momentum reconstruction in pp data at  $\sqrt{s} = 8\text{TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
Journal of Instrumentation, cilt.10, sa.2, 2015 (SCI-Expanded)
- CCCLXXVII. **Differential cross section measurements for the production of a W boson in association with jets in proton-proton collisions at  $s=7\text{TeV}$**   
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.741, ss.12-37, 2015 (SCI-Expanded)
- :CLXXVIII. **Study of vector boson scattering and search for new physics in events with two same-sign leptons and two jets**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., Ghete V., et al.  
Physical Review Letters, cilt.114, sa.5, 2015 (SCI-Expanded)
- :CCLXXIX. **Search for long-lived neutral particles decaying to quark-antiquark pairs in proton-proton collisions**

at  $\sqrt{s} = 8\text{TeV}$

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.

Physical Review D - Particles, Fields, Gravitation and Cosmology, cilt.91, sa.1, 2015 (SCI-Expanded)

CCCLXXX. **Measurement of the W boson helicity in events with a single reconstructed top quark in pp collisions at  $\sqrt{s} = 8\text{TeV}$**

The CMS collaboration C., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Friedl M., Frühwirth R., et al.

Journal of High Energy Physics, cilt.2015, sa.1, 2015 (SCI-Expanded)

CCCLXXXI. **Measurement of the  $pp \rightarrow ZZ$  production cross section and constraints on anomalous triple gauge couplings in four-lepton final states at  $\sqrt{s} = 8\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, cilt.740, ss.250-272, 2015 (SCI-Expanded)

CCLXXXII. **Search for new resonances decaying via WZ to leptons in proton-proton collisions at  $\sqrt{s} = 8\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.

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CLXXXIII. **Measurement of the production cross section ratio  $\sigma(\chi_{b2}(1P))/\sigma(\chi_{b1}(1P))$  in pp collisions at  $\sqrt{s} = 8\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.

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CLXXXIV. **Study of Z production in PbPb and pp collisions at  $\sqrt{s_{NN}} = 2.76\text{TeV}$  in the dimuon and dielectron decay channels**

The CMS collaboration C., Chatrchyan S., Khachatryan V., Sirunyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., et al.

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CCLXXXV. **Search for disappearing tracks in proton-proton collisions at  $\sqrt{s} = 8\text{TeV}$**

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CLXXXVI. **Measurement of electroweak production of two jets in association with a Z boson in proton-proton collisions at  $\sqrt{s} = 8\text{TeV}$**

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CLXXXVII. **Measurement of the ratio of the production cross sections times branching fractions of  $B_{c\pm} \rightarrow J/\psi \pi^{\pm}$  and  $B_{\pm} \rightarrow J/\psi K^{\pm}$  and  $(\text{Formula presented.})$  in pp collisions at  $\sqrt{s} = 8\text{TeV}$**

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LXXXVIII. **Measurement of prompt  $\psi(2S)$  to  $J/\psi$  yield ratios in Pb-Pb and p - p collisions at  $\sqrt{s_{NN}} = 2.76\text{TeV}$**

Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.

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CLXXXIX. **Searches for heavy Higgs bosons in two-Higgs-doublet models and for  $t \rightarrow ch$  decay using multilepton and diphoton final states in pp collisions at  $\sqrt{s} = 8\text{TeV}$**

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- CCCXC. **Search for pair production of third-generation scalar leptoquarks and top squarks in proton–proton collisions at [Formula presented] TeV**  
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- CCCXCIII. **Search for supersymmetry with razor variables in pp collisions at  $s = 7\text{TeV}$**   
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- CCCXCIV. **Searches for electroweak neutralino and chargino production in channels with Higgs, Z, and W bosons in pp collisions at 8 TeV**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
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- CCCXCV. **Measurement of differential cross sections for the production of a pair of isolated photons in pp collisions at  $s=7\text{TeV}$**   
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- CCCXCVIII. **Measurement of pseudorapidity distributions of charged particles in proton–proton collisions at (Equation Present) TeV by the CMS and TOTEM experiments**  
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- CD. **Measurement of the ratio of inclusive jet cross sections using the anti- $k_T$  algorithm with radius parameters  $R=0.5$  and  $0.7$  in pp collisions at  $\sqrt{s}=7\text{TeV}$**   
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- CDI. **Evidence of b-jet quenching in PbPb collisions at  $\sqrt{s_{NN}}=2.76\text{TeV}$**   
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- CDII. **Constraints on the Higgs boson width from off-shell production and decay to Z-boson pairs**  
 Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Frühwirth R., et al.  
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- CDIII. **Measurement of the ratio  $B(t\rightarrow Wb)/B(t\rightarrow Wq)$  in pp collisions at  $\sqrt{s}=8\text{TeV}$**   
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- CDIV. **Search for top-squark pairs decaying into Higgs or Z bosons in pp collisions at  $\sqrt{s}=8\text{TeV}$**   
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- CDV. **Measurement of top quark-antiquark pair production in association with a W or Z boson in pp collisions at  $\sqrt{s}=8\text{TeV}$**   
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- CDVI. **Searches for electroweak production of charginos, neutralinos, and sleptons decaying to leptons and W, Z, and Higgs bosons in pp collisions at 8 TeV**  
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- CDVII. **Search for  $WW\gamma$  and  $WZ\gamma$  production and constraints on anomalous quartic gauge couplings in pp collisions at  $\sqrt{s}=8\text{TeV}$**   
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- CDVIII. **Search for anomalous production of events with three or more leptons in pp collisions at  $\sqrt{s}=8\text{TeV}$**   
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- CDIX. **Search for jet extinction in the inclusive jet- $p_T$  spectrum from proton-proton collisions at  $\sqrt{s}=8\text{TeV}$**   
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- CDX. **Measurement of jet fragmentation in PbPb and pp collisions at  $\sqrt{s_{NN}}=2.76\text{TeV}$**   
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- CDXI. **Measurement of the muon charge asymmetry in inclusive  $pp \rightarrow w+X$  production at  $s = 7\text{TeV}$  and an improved determination of light parton distribution functions**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., et al.  
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- CDXII. **Search for invisible decays of Higgs bosons in the vector boson fusion and associated ZH production modes**  
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- CDXIII. **Measurement of WZ and ZZ production in pp collisions at (Formula presented.) in final states with b-tagged jets**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., et al.  
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- CDXIV. **Measurement of jet multiplicity distributions in (Formula presented.) production in pp collisions at (Formula presented.)**  
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- CDXV. **Measurement of the production cross section for a W boson and two b jets in pp collisions at  $\sqrt{s}=7\text{TeV}$**   
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- CDXVI. **Studies of dijet transverse momentum balance and pseudorapidity distributions in pPb collisions at  $\sqrt{s_{NN}}= 5.02\text{TeV}$**   
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- CDXVII. **Observation of a peaking structure in the  $J/\psi\phi$  mass spectrum from  $B^{\pm} \rightarrow J/\psi\phi K^{\pm}$  decays**  
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- CDXVIII. **Observation of the associated production of a single top quark -and a W boson in pp collisions at  $s = 8\text{TeV}$**   
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- CDXIX. **Alignment of the CMS tracker with LHC and cosmic ray data**  
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- CDXX. **Measurement of four-jet production in proton-proton collisions at  $s = 7\text{TeV}$**   
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- CDXXI. **Measurement of inclusive W and Z boson production cross sections in pp collisions at  $s = 8\text{TeV}$**   
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Physical Review Letters, cilt.112, sa.19, 2014 (SCI-Expanded)
- CDXXII. **Measurement of the properties of a Higgs boson in the four-lepton final state**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., et al.  
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- CDXXIII. **Measurement of the  $W\gamma$  and  $Z\gamma$  inclusive cross sections in pp collisions at  $s = 7$  TeV and limits on anomalous triple gauge boson couplings**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., et al.  
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- CDXXIV. **Measurements of  $t\bar{t}$  spin correlations and top-quark polarization using dilepton final states in pp collisions at  $s = 7$  TeV**  
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- CDXXV. **Search for new physics in the multijet and missing transverse momentum final state in proton-proton collisions at  $\sqrt{s} = 8$  TeV**  
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Journal of High Energy Physics, cilt.2014, sa.6, 2014 (SCI-Expanded)
- CDXXVI. **Study of the production of charged pions, kaons, and protons in pPb collisions at  $\sqrt{S_{NN}} = 5.02$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., et al.  
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- CDXXVII. **Measurement of the t-channel single-top-quark production cross section and of the  $|V_{tb}|$  CKM matrix element in pp collisions at  $\sqrt{S} = 8$  TeV**  
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- CDXXVIII. **Inclusive search for supersymmetry using razor variables in pp collisions at  $\sqrt{s}=7$  TeV**  
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## **Diğer Dergilerde Yayınlanan Makaleler**

- I. **Portable Acceleration of CMS Computing Workflows with Coprocessors as a Service**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Computing and Software for Big Science, cilt.8, sa.1, 2024 (Scopus)
- II. **The CMS Statistical Analysis and Combination Tool: Combine**  
Zhokin A., Zhizhin I., Zarubin A., Yuldashev B., Voytishin N., Vorotnikov G., Vorobyev A., Volkov P., Uzunian A., Uvarov L., et al.  
Computing and Software for Big Science, cilt.8, sa.1, 2024 (Scopus)

## **Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar**

- I. **Search for supersymmetry with a compressed mass spectrum in events involving soft leptons, jets**

**and missing transverse momentum with an integrated luminosity of 20.1 pb<sup>-1</sup> of  $\sqrt{s} = 8$  TeV ATLAS data**

Morvaj L.

2013 European Physical Society Conference on High Energy Physics, EPS-HEP 2013, Stockholm, İsveç, 18 - 24 Temmuz 2013

## **Metrikler**

Yayın: 431

Atf (WoS): 274

Atf (Scopus): 15519

H-İndeks (WoS): 5

H-İndeks (Scopus): 65

## **Akademi Dışı Deneyim**

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