

# Prof. İSA DUMANOĞLU

## Personal Information

**Office Phone:** [+90 322 338 6084](tel:+903223386084) Extension: 2461

**Fax Phone:** [+90 322 338 6070](tel:+903223386070)

**Email:** [dumanoglu@cu.edu.tr](mailto:dumanoglu@cu.edu.tr)

**Web:** <https://avesis.cu.edu.tr//dumanoglu>

**Address:** [dumanoglu@cu.edu.tr](mailto:dumanoglu@cu.edu.tr)

## International Researcher IDs

ORCID: 0000-0002-0039-5503

Publons / Web Of Science ResearcherID: C-3627-2018

Yoksis Researcher ID: 5435

## Education Information

Doctorate, Cukurova University, Fen-Edebiyat Fakültesi, Fizik, Turkey 1996 - 2001

## Foreign Languages

English, B2 Upper Intermediate

## Dissertations

Doctorate, The Design and Tests of the Very Forward Calorimeter of the CMS Detector at Large Hadron Collider, Cukurova University, Fen-Edebiyat Fakültesi, Fizik, 2001

## Research Areas

Physics, Basic Particles and Areas, Natural Sciences

## Academic Titles / Tasks

Professor, Cukurova University, Fen-Edebiyat Fakültesi, Fizik, 2010 - Continues

## Supervised Theses

DUMANOĞLU İ., ANALYSES OF HB, HE, HO AND HF CALORIMETERS OF CMS DETECTOR WITH 2015 COSMIC DATA AND PROTON ? PROTON COLLISION DATA AT  $\sqrt{s} = 13$  TeV, Postgraduate, M.İnce(Student), 2016

DUMANOĞLU İ., CMS DETEKTÖRÜNÜN HF KALORİMETRESİNDE YENİLENEN FÇT'LERİN PERFORMANS ANALİZİ, Postgraduate, S.Lezki(Student), 2016

DUMANOĞLU İ., CMS detektörünün hf kalorimetresinin dört anotlu fotoçoğaltıcı tüplerinin kontrol testleri, Postgraduate, U.Kayhan(Student), 2014

DUMANOĞLU İ., Search for dark matter and large extra dimensions in monojet events in pp collisions at  $\sqrt{s} = 8$  TeV, Doctorate, E.Ersin(Student), 2013

DUMANOĞLU İ., ). BHC'de 7 TeV'lik Proton-Proton Çarpışmalarındaki Tek Jet Olaylarında  $W^+e^+e^-$  Bozunumundan Kaynaklı SM Katkılarının Elenmesi, Postgraduate, Ü.Kaya(Student), 2012

DUMANOĞLU İ., Search for dark matter and large extra dimensions in monojet events in pp collisions at  $\sqrt{s}=7$  tev, Doctorate, M.Vergili(Student), 2012

DUMANOĞLU İ., Determination of underlying event contribution to the jet energies in CMS heavy ion collisions, Postgraduate, A.Nart(Student), 2011

DUMANOĞLU İ., CMS HF dedektöründe kullanılan fiberlerin radyasyondan gördüğü zararı görüntüleme sistemi, Postgraduate, Y.Güler(Student), 2011

DUMANOĞLU İ., CMS'deki CASTOR kalorimetresinde kullanılan foto-çoğaltıcı tüplerin kalite kontrol testlerinin yapılması ve sonuçlarının incelenmesi, Postgraduate, Z.Demir(Student), 2010

DUMANOĞLU İ., 2008 beam test of CMS-CASTOR prototype IV ve CMS-HF test of online radiation damage monitoring system, Postgraduate, D.Uzun(Student), 2010

DUMANOĞLU İ., Jet shapes at CMS in proton-proton collisions at  $\sqrt{s}=14$  TeV, Doctorate, P.Kurt(Student), 2009

DUMANOĞLU İ., LHC Hızlandırıcısındaki CMS Deneyinin HF Kalorimetresinin Test Verilerini Kullanarak HF'in Temel Özelliklerinin Araştırılması, Doctorate, H.Özkurt(Student), 2007

DUMANOĞLU İ., Bilgisayar destekli fizik deneyleri, Postgraduate, D.Nalan(Student), 2006

DUMANOĞLU İ., Jet energy calibration studies, Postgraduate, M.Vergili(Student), 2006

DUMANOĞLU İ., Yüksek enerjilerde proton-proton etkileşmelerinin simülasyonu, Postgraduate, N.Akgül(Student), 2005

DUMANOĞLU İ., HF dedektörünün liflerinin kalite testleri, Postgraduate, H.Çelik(Student), 2005

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Search for light long-lived particles decaying to displaced jets in proton-proton collisions at  $\sqrt{s} = 13.6$  TeV**  
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.  
Reports on Progress in Physics, vol.88, no.3, 2025 (SCI-Expanded)
- II. **Search for the Higgs boson decays to a  $\rho^0$ ,  $\phi$ , or  $K^*0$  meson and a photon 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.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.862, 2025 (SCI-Expanded)
- III. **Pseudorapidity distributions of charged hadrons in lead-lead collisions at  $s_{NN}=5.36$ 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, vol.861, 2025 (SCI-Expanded)
- IV. **Girth and groomed radius of jets recoiling against isolated photons in lead-lead and proton-proton collisions at  $s_{NN}=5.02$  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, vol.861, 2025 (SCI-Expanded)
- V. **Constraints on the Higgs boson self-coupling from the combination of single and double Higgs boson production 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.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.861, 2025 (SCI-Expanded)
- VI. **Measurement of inclusive and differential cross sections for  $W+W^-$  production 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.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.861, 2025 (SCI-Expanded)
- VII. **Search for New Resonances Decaying to Pairs of Merged Diphotons 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, vol.134, no.4, 2025 (SCI-Expanded)
- VIII. **Search for a standard model-like Higgs boson in the mass range between 70 and 110 GeV in the diphoton final state in proton-proton collisions at  $s=13\text{TeV}$**   
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.860, 2025 (SCI-Expanded)
- IX. **Study of WH production through vector boson scattering and extraction of the relative sign of the W and Z couplings to the Higgs boson in proton-proton collisions at  $s=13\text{TeV}$**   
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, vol.860, 2025 (SCI-Expanded)
- X. **Search for charged-lepton flavor violation in the production and decay of top quarks using trilepton 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., Escalante Del Valle A., Hussain P., et al.  
Physical Review D, vol.111, no.1, 2025 (SCI-Expanded)
- XI. **Search for bottom quark associated production of the standard model Higgs boson in final states with leptons in proton-proton collisions at  $s=13\text{TeV}$**   
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, vol.860, 2025 (SCI-Expanded)
- XII. **Searches for Pair-Produced Multijet Resonances Using Data Scouting in Proton-Proton Collisions at  $\sqrt{s}=13\text{TeV}$**   
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, vol.133, no.20, pp.201803, 2024 (SCI-Expanded)
- XIII. **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, vol.133, no.19, pp.191902, 2024 (SCI-Expanded)
- XIV. **Using graph neural networks to reconstruct charged pion showers in the CMS High Granularity Calorimeter**  
Aamir M., Adamov G., Adams T., Adloff C., Afanasiev S., Agrawal C., Agrawal C., Ahmad A., Ahmed H., Akbar S., et al.  
Journal of Instrumentation, vol.19, no.11, 2024 (SCI-Expanded)
- XV. **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, vol.19, no.11, 2024 (SCI-Expanded)
- XVI. **Measurement of the polarizations of prompt and non-prompt [Formula presented] and  $\psi(2S)$  mesons produced in pp collisions at  $s=13\text{TeV}$**   
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, vol.858, 2024 (SCI-Expanded)
- XVII. **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, vol.110, no.9, 2024 (SCI-Expanded)

**XVIII. Search for the Z Boson Decay to  $\tau\tau\mu\mu$  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 letters, vol.133, no.16, pp.161805, 2024 (SCI-Expanded)

**XIX. 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, vol.133, no.14, pp.142301, 2024 (SCI-Expanded)

**XX. 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, vol.110, no.7, 2024 (SCI-Expanded)

**XXI.  $KS_0$  and  $\Lambda(\Lambda^-)$  two-particle femtoscopic correlations 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.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.857, 2024 (SCI-Expanded)

**XXII. Measurement of the production cross section of a Higgs boson with large transverse momentum in its decays to a pair of  $\tau$  leptons 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.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.857, 2024 (SCI-Expanded)

**XXIII. 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, vol.857, 2024 (SCI-Expanded)

**XXIV. Measurement of differential ZZ + 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, vol.2024, no.10, 2024 (SCI-Expanded)

**XXV. 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, vol.84, no.10, 2024 (SCI-Expanded)

**XXVI. Measurement of the  $Bs_0 \rightarrow J/\psi KS_0$  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, vol.2024, no.10, 2024 (SCI-Expanded)

**XXVII. 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, vol.2024, no.10, 2024 (SCI-Expanded)

**XXVIII. 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, vol.2024, no.9, 2024 (SCI-Expanded)

**XXXIX. 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, vol.19, no.9, 2024 (SCI-Expanded)

**XXX. 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, vol.110, no.5, 2024 (SCI-Expanded)

**XXXI. 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, vol.19, no.9, 2024 (SCI-Expanded)

**XXXII. 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, vol.133, no.7, 2024 (SCI-Expanded)

**XXXIII. 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, vol.84, no.8, 2024 (SCI-Expanded)

**XXXIV. 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, vol.2024, no.8, 2024 (SCI-Expanded)

**XXXV. 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, vol.84, no.8, 2024 (SCI-Expanded)

**XXXVI. 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, vol.110, no.3, 2024 (SCI-Expanded)

**XXXVII. 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, vol.2024, no.8, 2024 (SCI-Expanded)

**XXXVIII. Evidence for tWZ production in proton-proton collisions at  $s=13$  TeV in multilepton final states**

Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Escalante Del Valle A., Hussain P., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.855, 2024 (SCI-Expanded)

**XXXIX. 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, vol.133, no.2, 2024 (SCI-Expanded)

- XL. **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, vol.133, no.1, 2024 (SCI-Expanded)
- XLII. **Search for ZZ and ZH production in the  $bb\bar{b}b\bar{b}$  final state using proton-proton collisions at  $s=13\text{TeV}$**   
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, vol.84, no.7, 2024 (SCI-Expanded)
- XLIII. **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, vol.110, no.1, 2024 (SCI-Expanded)
- XLIV. **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, vol.87, no.7, 2024 (SCI-Expanded)
- XLV. **Search for dark QCD with emerging jets in proton-proton collisions at  $s = 13 \text{ TeV}$**   
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, vol.2024, no.7, 2024 (SCI-Expanded)
- XLVI. **Observation of the Formula Presented decay and studies of the Formula Presented baryon 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, vol.110, no.1, 2024 (SCI-Expanded)
- XLVII. **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, vol.110, no.1, 2024 (SCI-Expanded)
- XLVIII. **Search for a scalar or pseudoscalar dilepton resonance produced in association with a massive vector boson or top quark-antiquark  $ff\bar{f}\bar{f}$  pair in multilepton events at  $\sqrt{s}=13 \text{ TeV}$**   
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, vol.110, no.1, 2024 (SCI-Expanded)
- XLIX. **Combination of Measurements of the Top Quark Mass from Data Collected by the ATLAS and CMS Experiments at  $\sqrt{s}=7$  and  $8 \text{ TeV}$**   
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, vol.132, no.26, 2024 (SCI-Expanded)
- L. **Search for Baryon Number Violation in Top Quark Production and Decay Using 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, vol.132, no.24, 2024 (SCI-Expanded)
- L. **Search for stealth supersymmetry in final states with two photons, jets, and low missing transverse**

**momentum in proton-proton collisions at Formula Presented**

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, vol.109, no.11, 2024 (SCI-Expanded)

- LI. **Search for the lepton flavor violating  $\tau \rightarrow 3\mu$  decay in proton-proton collisions at  $s=13\text{TeV}$**   
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, vol.853, 2024 (SCI-Expanded)
- LII. **Search for pair production of scalar and vector leptoquarks decaying to muons and bottom quarks 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, vol.109, no.11, 2024 (SCI-Expanded)
- LIII. **Combined search for electroweak production of winos, binos, higgsinos, and sleptons 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, vol.109, no.11, 2024 (SCI-Expanded)
- LIV. **Observation of the Formula Presented decay 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, vol.109, no.11, 2024 (SCI-Expanded)
- LV. **Nonresonant central exclusive production of charged-hadron pairs 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, vol.109, no.11, 2024 (SCI-Expanded)
- LVI. **Search for long-lived particles using displaced vertices and missing transverse momentum 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, vol.109, no.11, 2024 (SCI-Expanded)
- LVII. **Measurement of the primary Lund jet plane density in proton-proton collisions at  $s = 13 \text{ TeV}$**   
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, vol.2024, no.5, 2024 (SCI-Expanded)
- LVIII. **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, vol.109, no.9, 2024 (SCI-Expanded)
- LIX. **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, vol.19, no.5, 2024 (SCI-Expanded)
- LX. **Inclusive and differential cross section measurements of  $t\bar{t}b\bar{b}$  production in the lepton+jets channel at  $s = 13 \text{ TeV}$**   
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, vol.2024, no.5, 2024 (SCI-Expanded)

- LXI. **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, vol.2024, no.5, 2024 (SCI-Expanded)
- LXII. **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, vol.84, no.5, 2024 (SCI-Expanded)
- LXIII. **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, vol.2024, no.5, 2024 (SCI-Expanded)
- LXIV. **Search for an exotic decay of the Higgs boson into a Z boson and a pseudoscalar particle 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.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.852, 2024 (SCI-Expanded)
- LXV. **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, vol.2024, no.5, 2024 (SCI-Expanded)
- LXVI. **Timing performance of the CMS High Granularity Calorimeter prototype**  
Acar B., Adamov G., Adloff C., Afanasiev S., Akchurin N., Akgün B., Khan F., Alhusseini M., Alison J., Alpana A., et al.  
Journal of Instrumentation, vol.19, no.4, 2024 (SCI-Expanded)
- LXVII. **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, vol.109, no.7, 2024 (SCI-Expanded)
- LXVIII. **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, vol.109, no.7, 2024 (SCI-Expanded)
- LXIX. **Observation of  $WW\gamma$  Production and Search for  $H\gamma$  Production 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 Letters, vol.132, no.12, 2024 (SCI-Expanded)
- LXX. **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, vol.132, no.11, 2024 (SCI-Expanded)
- LXXI. **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, vol.2024, no.3, 2024 (SCI-Expanded)
- LXXII. **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, vol.2024, no.3, 2024 (SCI-Expanded)
- LXXIII. **Measurements of azimuthal anisotropy of nonprompt  $D^0$  mesons 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.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.850, 2024 (SCI-Expanded)
- LXXIV. **Search for new Higgs bosons via same-sign top quark pair production in association with a jet 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.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.850, 2024 (SCI-Expanded)
- LXXV. **Study of azimuthal anisotropy of  $Y(1S)$  mesons in pPb collisions at  $s_{NN} = 8.16$  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.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.850, 2024 (SCI-Expanded)
- LXXVI. **Search for Scalar Leptoquarks Produced via  $\tau$ -Lepton-Quark Scattering 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.  
Physical review letters, vol.132, no.6, pp.61801, 2024 (SCI-Expanded)
- LXXVII. **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, vol.109, no.2, 2024 (SCI-Expanded)
- LXXVIII. **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, vol.2024, no.2, 2024 (SCI-Expanded)
- LXXIX. **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, vol.19, no.2, 2024 (SCI-Expanded)
- LXXX. **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, vol.132, no.4, 2024 (SCI-Expanded)
- LXXXI. **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, vol.132, no.2, pp.21803, 2024 (SCI-Expanded)
- LXXXII. **Measurement of the Higgs boson production via vector boson fusion and its decay into bottom quarks 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, vol.2024, no.1, 2024 (SCI-Expanded)
- LXXXIII. **Luminosity determination using Z boson production at the CMS experiment**  
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, vol.84, no.1, 2024 (SCI-Expanded)
- LXXXIV. **Measurement of the production cross section for a W boson in association with a charm quark in proton-proton collisions at  $\sqrt{s}=13\text{TeV}$**   
Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Valle A. E. D., Hussain P., Jeitler M., et al.  
European Physical Journal C, vol.84, no.1, 2024 (SCI-Expanded)
- LXXXV. **Study of charm hadronization with prompt  $\Lambda_c^+$  baryons in proton-proton and lead-lead collisions at  $s_{NN} = 5.02 \text{ TeV}$**   
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, vol.2024, no.1, 2024 (SCI-Expanded)
- LXXXVI. **Measurement of the  $\tau$  lepton polarization in Z boson decays 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.  
Journal of High Energy Physics, vol.2024, no.1, 2024 (SCI-Expanded)
- LXXXVII. **Multiplicity and rapidity dependence of strange hadron production in pp, pPb, and PbPb collisions at the LHC**  
POLATÖZ A., KAYIŞ TOPAKSU A., DUMANOĞLU İ., Collaboration C.  
PHYSICS LETTERS B, vol.768, pp.103-129, 2017 (SCI-Expanded)
- LXXXVIII. **Measurements of differential production cross sections for a Z boson in association with jets in pp collisions at root  $s=8 \text{ TeV}$**   
Khachatryan V., SIRUNYAN A. M., Tumasyan A., Wolfgang A., Asiler E., BRANDSTETTER J., BERGAUER T., DUMANOĞLU İ.  
JOURNAL OF HIGH ENERGY PHYSICS, no.4, pp.1-20, 2017 (SCI-Expanded)
- LXXXIX. **Search for electroweak production of charginos in final states with two T leptons in pp collisions at root  $s=8 \text{ TeV}$**   
Khachtryan V., SIRUNYAN A. M., Wolfgang A., Tumasyan A., ASILAR E., BRANDSTETTER J., BERGAUER T., DUMANOĞLU İ., KAYIŞ TOPAKSU A., Collaboration C.  
JOURNAL OF HIGH ENERGY PHYSICS, no.4, pp.1-20, 2017 (SCI-Expanded)
- XC. **Charged-particle nuclear modification factors in PbPb and pPb collisions at root  $s(NN)=5.02 \text{ TeV}$**   
SIRUNYAN A. M., Tumasyan A., Wolfgang A., Ece A., BRANDSTETTER J., BERGAUER T., DUMANOĞLU İ., Collaboration C.  
JOURNAL OF HIGH ENERGY PHYSICS, no.4, pp.1-20, 2017 (SCI-Expanded)
- XCII. **Search for high-mass diphoton resonances in proton-proton collisions at 13 TeV and combination with 8 TeV search**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
PHYSICS LETTERS B, vol.767, pp.147-170, 2017 (SCI-Expanded)
- XCIII. **Relative Modification of Prompt  $\psi(2S)$  and  $J/\psi$  Yields from pp to PbPb Collisions at root  $(S)(NN)=5.02 \text{ TeV}$**   
DUMANOĞLU İ., KAYIŞ TOPAKSU A., TUMASYAN A., Wolfgang A., Albert S.  
PHYSICAL REVIEW LETTERS, vol.118, pp.1-20, 2017 (SCI-Expanded)
- XCIII. **Observation of Charge-Dependent Azimuthal Correlations in p-Pb Collisions and Its Implication for the Search for the Chiral Magnetic Effect**  
Khachatryan V., Tumasyan A., SIRUNYAN A. M., Wolfgang A., Asiler E., BRANDSTETTER J., BERGAUER T.,

- DUMANOĞLU İ., KAYIŞ TOPAKSU A., Collaboration C.  
 PHYSICAL REVIEW LETTERS, vol.118, no.12, pp.1-20, 2017 (SCI-Expanded)
- XCV. **Measurement of the  $t(\bar{t})$  over-bar production cross section using events in the  $e\mu$  final state in  $pp$  collisions at  $\sqrt{s}=13$  TeV**  
 Khachatryan V., SIRUNYAN A. M., Tumasyan A., Wolfgang A., Asiler E., BRANDSTETTER J., DUMANOĞLU İ., KAYIŞ TOPAKSU A., Collaboration C.  
 EUROPEAN PHYSICAL JOURNAL C, vol.77, no.3, pp.1-20, 2017 (SCI-Expanded)
- XCV. **Phenomenological MSSM interpretation of CMS searches in  $pp$  collisions at  $\sqrt{s}=7$  and 8 TeV**  
 Chatrchyan S., Khachtryan V., Sirunyan A., Tumasyan A., Wolfgang A., Asiler E., Bergauer T., Brandstetter J., DUMANOĞLU İ., EŞKUT E., et al.  
 JOURNAL OF HIGH ENERGY PHYSICS, vol.10, pp.1-52, 2016 (SCI-Expanded)
- XCVI. **Dose rate effects in the radiation damage of the plastic scintillators of the CMS hadron endcap calorimeter**  
 Khachatryan V., Sirunyan A. M., Tumasyan A., Litomin A., Mossolov V., Shumeiko N., Van de Klundert M., Van Haeveermaet H., Van Mechelen P., Van Spilbeeck A., et al.  
 JOURNAL OF INSTRUMENTATION, vol.11, 2016 (SCI-Expanded)
- XCVII. **Measurements of  $t(\bar{t})$  over-bar charge asymmetry using dilepton final states in  $pp$  collisions at  $\sqrt{s}=8$  TeV**  
 Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
 PHYSICS LETTERS B, vol.760, pp.365-386, 2016 (SCI-Expanded)
- XCVIII. **Search for direct pair production of scalar top quarks in the single- and dilepton channels in proton-proton collisions at  $\sqrt{s} = 8$  TeV**  
 Khachtryan V., Albert S., Tumasyan A., Wolfgang A., Ece A., Bergauer T., Brandstetter J., Brondolin E., DUMANOĞLU İ., POLATÖZ A., et al.  
 JOURNAL OF HIGH ENERGY PHYSICS, no.9, pp.1-20, 2016 (SCI-Expanded)
- XCIX. **Search for a low-mass pseudoscalar Higgs boson produced in association with a  $b(\bar{b})$  over-bar pair in  $pp$  collisions at  $\sqrt{s}=8$  TeV**  
 Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
 PHYSICS LETTERS B, vol.758, pp.296-320, 2016 (SCI-Expanded)
- C. **Measurement of the  $W+W-$  cross section in  $pp$  collisions at  $\sqrt{s}=8$  TeV and limits on anomalous gauge couplings**  
 Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
 EUROPEAN PHYSICAL JOURNAL C, vol.76, no.7, 2016 (SCI-Expanded)
- CI. **Inclusive and differential measurements of the  $t(\bar{t})$  over-bar charge asymmetry in  $pp$  collisions at  $\sqrt{s}=8$  TeV**  
 EŞKUT E., POLATÖZ A., DUMANOĞLU İ.  
 MODERN PHYSICS LETTERS B, vol.757, pp.154-179, 2016 (SCI-Expanded)
- CII. **Forward-backward asymmetry of Drell-Yan lepton pairs in  $pp$  collisions at  $\sqrt{s}=8$  TeV**  
 Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
 EUROPEAN PHYSICAL JOURNAL C, vol.76, no.6, 2016 (SCI-Expanded)
- CIII. **Measurement of the ratio  $B(B\text{-}s(0) \rightarrow J/\psi f(0)(980))/B(B\text{-}s(0) \rightarrow J/\psi \phi(1020))$  in  $pp$  collisions at  $\sqrt{s}=7$  TeV**  
 Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Friedl M., Fruehwirth R., Ghete V. M., et al.  
 PHYSICS LETTERS B, vol.756, pp.84-102, 2016 (SCI-Expanded)
- CIV. **Search for supersymmetry in  $pp$  collisions at  $\sqrt{s}=8$  TeV in final states with boosted  $W$  bosons and  $b$  jets using razor variables**

Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
PHYSICAL REVIEW D, vol.93, no.9, 2016 (SCI-Expanded)

- CV. **Measurement of the inclusive jet cross section in pp collisions at root s=2.76 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.76, no.5, 2016 (SCI-Expanded)
- CVI. **Search for new phenomena in monophoton final states in proton-proton collisions at root s=8 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Friedl M., Fruehwirth R., Ghete V. M., et al.  
PHYSICS LETTERS B, vol.755, pp.102-124, 2016 (SCI-Expanded)
- CVII. **Comparison of the Z/gamma\* + jets to gamma + jets cross sections in pp collisions at root s = 8 (vol 10, 128, 2015)**  
EŞKUT E., POLATÖZ A., DUMANOĞLU İ.  
JOURNAL OF HIGH ENERGY PHYSICS, no.4, pp.1-21, 2016 (SCI-Expanded)
- CVIII. **Search for massive WH resonances decaying into the l nu b(b)over-bar final state at root s=8 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.76, no.5, 2016 (SCI-Expanded)
- CIX. **Search for W ' -> tb in proton-proton collisions at root s=8 TeV**  
Khachtryan V., Sirunyan A., Tumasyan A., Wolfgang A., Asiler E., Bergauer T., Brondolin E., DUMANOĞLU İ., EŞKUT E., POLATÖZ A., et al.  
JOURNAL OF HIGH ENERGY PHYSICS, no.2, pp.1-42, 2016 (SCI-Expanded)
- CX. **Measurement of differential cross sections for Higgs boson production in the diphoton decay channel in pp collisions at root s=8TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.76, no.1, 2016 (SCI-Expanded)
- CXI. **Pseudorapidity distribution of charged hadrons in proton-proton collisions at root s=13TeV**  
KAYIŞ TOPAKSU A., POLATÖZ A., EŞKUT E., DUMANOĞLU İ.  
PHYSICS LETTERS B, vol.751, pp.143-163, 2015 (SCI-Expanded)
- CXII. **Search for diphoton resonances in the mass range from 150 to 850 GeV in pp collisions at root s=8 TeV**  
KAYIŞ TOPAKSU A., POLATÖZ A., EŞKUT E., DUMANOĞLU İ.  
PHYSICS LETTERS B, vol.750, pp.494-519, 2015 (SCI-Expanded)
- CXIII. **Measurements of the Upsilon(1S), Upsilon(2S), and Upsilon(3S) differential cross sections in pp collisions at root s=7 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Friedl M., Fruehwirth R., Ghete V. M., et al.  
PHYSICS LETTERS B, vol.749, pp.14-34, 2015 (SCI-Expanded)
- CXIV. **Performance of photon reconstruction and identification with the CMS detector in proton-proton collisions at root s=8TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Friedl M., Fruehwirth R., Ghete V. M., et al.  
JOURNAL OF INSTRUMENTATION, vol.10, 2015 (SCI-Expanded)
- CXV. **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., Wolfgang A., Bergauer T., Dragicevic M., DUMANOĞLU İ., EŞKUT E., POLATÖZ A., KAYIŞ TOPAKSU A.  
EUROPEAN PHYSICAL JOURNAL C, vol.75, no.5, pp.1-50, 2015 (SCI-Expanded)
- CXVI. **Measurement of the Z gamma production cross section in pp collisions at 8 TeV and search for**

**anomalous triple gauge boson couplings**

Khachatryan V., Sirunyan A., Tumasyan A., Wolfgang A., Bergauer T., Dragicevic M., DUMANOĞLU İ., EŞKUT E., POLATÖZ A., KAYIŞ TOPAKSU A.

JOURNAL OF HIGH ENERGY PHYSICS, no.4, pp.1-40, 2015 (SCI-Expanded)

- CXVII. **Search for Monotop Signatures in Proton-Proton Collisions at root s=8 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
PHYSICAL REVIEW LETTERS, vol.114, no.10, 2015 (SCI-Expanded)
- CXVIII. **Performance of the CMS missing transverse momentum reconstruction in pp data at root s=8 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
JOURNAL OF INSTRUMENTATION, vol.10, 2015 (SCI-Expanded)
- CXIX. **Measurement of differential cross sections for the production of a pair of isolated photons in pp collisions at root s=7TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.74, no.11, 2014 (SCI-Expanded)
- CXX. **Observation of the diphoton decay of the Higgs boson and measurement of its properties**  
EŞKUT E., KAYIŞ TOPAKSU A., POLATÖZ A., DUMANOĞLU İ.  
EUROPEAN PHYSICAL JOURNAL C, vol.74, no.10, pp.1-49, 2014 (SCI-Expanded)
- CXXI. **Searches for electroweak production of charginos, neutralinos, and sleptons decaying to leptons and W, Z, and Higgs bosons in pp collisions at 8 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.74, no.9, 2014 (SCI-Expanded)
- CXXII. **Measurement of top quark-antiquark pair production in association with a W or Z boson in pp collisions at root s=8 TeV**  
DUMANOĞLU İ., EŞKUT E., ÖNENGÜT G., POLATÖZ A., KAYIŞ TOPAKSU A.  
EUROPEAN PHYSICAL JOURNAL C, vol.74, no.9, pp.1-26, 2014 (SCI-Expanded)
- CXXIII. **Modification of jet shapes in PbPb collisions at root s(NN)=2.76 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.730, pp.243-263, 2014 (SCI-Expanded)
- CXXIV. **Searches for light- and heavy-flavour three-jet resonances in pp collisions at root s=8 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.730, pp.193-214, 2014 (SCI-Expanded)
- CXXV. **Measurement of the t(t)over-bar production cross section in the dilepton channel in pp collisions at root s = 8 TeV (vol 2, 024, 2014)**  
EŞKUT E., DUMANOĞLU İ., KAYIŞ TOPAKSU A., ÖNENGÜT G., POLATÖZ A.  
JOURNAL OF HIGH ENERGY PHYSICS, no.2, pp.1-18, 2014 (SCI-Expanded)
- CXXVI. **Search for the standard model Higgs boson produced in association with a W or a Z boson and decaying to bottom quarks**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW D, vol.89, no.1, 2014 (SCI-Expanded)
- CXXVII. **Determination of the top-quark pole mass and strong coupling constant from the t(t)over-bar production cross section in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.728, pp.496-517, 2014 (SCI-Expanded)

- CXXVIII. **Measurement of Higgs boson production and properties in the WW decay channel with leptonic final states**  
Chatrchyan S., 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, vol.2014, no.1, 2014 (SCI-Expanded)
- CXXIX. **Study of double parton scattering using W + 2-jet events in proton-proton collisions at  $\sqrt{s} = 7$  TeV**  
Chatrchyan S., 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, vol.2014, no.3, 2014 (SCI-Expanded)
- CXXX. **Rapidity distributions in exclusive Z plus jet and gamma plus jet events in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW D, vol.88, no.11, 2013 (SCI-Expanded)
- CXXXI. **Measurement of the prompt J/psi and psi(2S) polarizations in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.727, pp.381-402, 2013 (SCI-Expanded)
- CXXXII. **Jet and underlying event properties as a function of charged-particle multiplicity in proton-proton collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.73, no.12, 2013 (SCI-Expanded)
- CXXXIII. **Search for Top Squarks in R-Parity-Violating Supersymmetry Using Three or More Leptons and b-Tagged Jets**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.111, no.22, 2013 (SCI-Expanded)
- CXXXIV. **Search for a new bottomonium state decaying to Upsilon(1S)pi(+)pi(-) in pp collisions at root s=8 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.727, pp.57-76, 2013 (SCI-Expanded)
- CXXXV. **Search for a non-standard-model Higgs boson decaying to a pair of new light bosons in four-muon final states**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Ero J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.726, pp.564-586, 2013 (SCI-Expanded)
- CXXXVI. **Measurement of the Upsilon(1S), Upsilon(2S), and Upsilon(3S) cross sections in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Ero J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.727, pp.101-125, 2013 (SCI-Expanded)
- CXXXVII. **Searches for new physics using the t(t)over-bar invariant mass distribution in pp collisions at root s=8 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.111, no.21, 2013 (SCI-Expanded)
- CXXXVIII. **The performance of the CMS muon detector in proton-proton collisions at root s=7 TeV at the LHC**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Ero J., Fabjan C., et al.

JOURNAL OF INSTRUMENTATION, vol.8, 2013 (SCI-Expanded)

- CXXXIX. **Measurement of the hadronic activity in events with a Z and two jets and extraction of the cross section for the electroweak production of a Z with two jets in pp collisions at root s=7 TeV**  
Chatrchyan S., 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, no.10, 2013 (SCI-Expanded)

- CXL. **Measurement of the ratio of the inclusive 3-jet cross section to the inclusive 2-jet cross section in pp collisions at root s=7 TeV and first determination of the strong coupling constant in the TeV range**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.

EUROPEAN PHYSICAL JOURNAL C, vol.73, no.10, 2013 (SCI-Expanded)

- CXLI. **Measurement of the W+W- cross section in pp collisions at and limits on anomalous WW gamma and WWZ couplings**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.

EUROPEAN PHYSICAL JOURNAL C, vol.73, no.10, 2013 (SCI-Expanded)

- CXLII. **Search for gluino mediated bottom- and top-squark production in multijet final states in pp collisions at 8 TeV**

Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.

PHYSICS LETTERS B, vol.725, pp.243-270, 2013 (SCI-Expanded)

- CXLIII. **Measurement of the W-boson helicity in top-quark decays from t(t)over-bar production in lepton plus jets events in pp collisions at root s=7 TeV**

Chatrchyan S., 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, no.10, 2013 (SCI-Expanded)

- CXLIV. **Measurement of neutral strange particle production in the underlying event in proton-proton collisions at root s=7 TeV**

Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.

PHYSICAL REVIEW D, vol.88, no.5, 2013 (SCI-Expanded)

- CXLV. **Interpretation of searches for supersymmetry with simplified models**

Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroë J., Fabjan C., et al.

PHYSICAL REVIEW D, vol.88, no.5, 2013 (SCI-Expanded)

- CXLVI. **Measurement of the B-s(0) ->mu(+)mu(-) Branching Fraction and Search for B-0 -> mu(+)mu(-) with the CMS Experiment**

Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.

PHYSICAL REVIEW LETTERS, vol.111, no.10, 2013 (SCI-Expanded)

- CXLVII. **Searches for Higgs bosons in pp collisions at root s=7 and 8 TeV in the context of four-generation and fermiophobic models**

Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroë J., Fabjan C., et al.

PHYSICS LETTERS B, vol.725, pp.36-59, 2013 (SCI-Expanded)

- CXLVIII. **Inclusive Search for Supersymmetry Using Razor Variables in pp Collisions at root s=7 TeV**

Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroë J., Fabjan C., et al.

PHYSICAL REVIEW LETTERS, vol.111, no.8, 2013 (SCI-Expanded)

- CXLIX. **search for new physics in events with same-sign dileptons and b jets in pp collisions at root s = 8 TeV**

EŞKUT E., DUMANOĞLU İ., KAYIŞ TOPAKSU A., ÖNENGÜT G., POLATÖZ A.

JOURNAL OF HIGH ENERGY PHYSICS, no.7, pp.1-18, 2013 (SCI-Expanded)

- CL. **Measurement of masses in the  $t(\bar{t})$  system by kinematic endpoints in pp collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.73, no.7, 2013 (SCI-Expanded)
- CLII. **Search for heavy resonances in the  $W/Z$ -tagged dijet mass spectrum in pp collisions at 7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.723, pp.280-301, 2013 (SCI-Expanded)
- CLIII. **Measurements of differential jet cross sections in proton-proton collisions at root  $s=7$  TeV with the CMS detector**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICAL REVIEW D, vol.87, no.11, 2013 (SCI-Expanded)
- CLIV. **Forward-backward asymmetry of Drell-Yan lepton pairs in pp collisions at root  $s=7$  TeV**  
POLATÖZ A., DUMANOĞLU İ., EŞKUT E., KAYIŞ TOPAKSU A., ÖNENGÜT G.  
PHYSICS LETTERS B, vol.718, pp.752-772, 2013 (SCI-Expanded)
- CLV. **Search for narrow resonances using the dijet mass spectrum in pp collisions at root  $s=8$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICAL REVIEW D, vol.87, no.11, 2013 (SCI-Expanded)
- CLVI. **Search for supersymmetry in pp collisions at root  $s=7$  TeV in events with a single lepton, jets, and missing transverse momentum**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.73, no.5, 2013 (SCI-Expanded)
- CLVII. **Search for long-lived particles in events with photons and missing energy in proton-proton collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.722, pp.273-294, 2013 (SCI-Expanded)
- CLVIII. **Measurement of associated production of vector bosons and top quark-antiquark pairs in pp collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICAL REVIEW LETTERS, vol.110, no.17, 2013 (SCI-Expanded)
- CLIX. **Search in leptonic channels for heavy resonances decaying to long-lived neutral particles**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Erö J., Fabjan C., et al.  
JOURNAL OF HIGH ENERGY PHYSICS, no.2, 2013 (SCI-Expanded)
- CLX. **Search for Pair Production of Third-Generation Leptoquarks and Top Squarks in pp Collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICAL REVIEW LETTERS, vol.110, no.8, 2013 (SCI-Expanded)
- CLXI. **Search for contact interactions in  $\mu(+)\mu(-)$  events in pp collisions at root  $s = 7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICAL REVIEW D, vol.87, no.3, 2013 (SCI-Expanded)



- CLXI. **Search for supersymmetry in events with photons and low missing transverse energy in pp collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroev J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.719, pp.42-61, 2013 (SCI-Expanded)
- CLXII. **Measurement of the sum of WW and WZ production with W plus dijet events in pp collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroev J., Fabjan C., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.73, no.2, 2013 (SCI-Expanded)
- CLXIII. **Measurement of the Upsilon(1S), Upsilon(2S), and Upsilon(3S) Polarizations in pp Collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroev J., Fabjan C., et al.  
PHYSICAL REVIEW LETTERS, vol.110, no.8, 2013 (SCI-Expanded)
- CLXIV. **Measurement of the elliptic anisotropy of charged particles produced in PbPb collisions at root  $s_{NN}=2.76$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroev J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW C, vol.87, no.1, 2013 (SCI-Expanded)
- CLXV. **Observation of long-range, near-side angular correlations in pPb collisions at the LHC**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroev J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.718, no.3, pp.795-814, 2013 (SCI-Expanded)
- CLXVI. **Search for a narrow, spin-2 resonance decaying to a pair of Z bosons in the  $q(q)\overline{l}(+)l(-)$  final state**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroev J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.718, pp.1208-1228, 2013 (SCI-Expanded)
- CLXVII. **Search for a  $W'$  boson decaying to a bottom quark and a top quark in pp collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroev J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.718, pp.1229-1251, 2013 (SCI-Expanded)
- CLXVIII. **Search for flavor changing neutral currents in top quark decays in pp collisions at 7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroev J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.718, pp.1252-1272, 2013 (SCI-Expanded)
- CLXIX. **Studies of jet quenching using isolated-photon plus jet correlations in PbPb and pp collisions at root  $s_{NN}=2.76$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroev J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.718, no.3, pp.773-794, 2013 (SCI-Expanded)
- CLXX. **Measurement of the Azimuthal Anisotropy of Neutral Pions in Pb-Pb Collisions at root  $S_{NN}=2.76$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroev J., Fabjan C., et al.  
PHYSICAL REVIEW LETTERS, vol.110, no.4, 2013 (SCI-Expanded)
- CLXXI. **Evidence for Associated Production of a Single Top Quark and W Boson in pp Collisions at root  $s=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroev J., Fabjan C., et al.

- PHYSICAL REVIEW LETTERS, vol.110, no.2, 2013 (SCI-Expanded)
- CLXXII. **Observation of a diffractive contribution to dijet production in proton-proton collisions at root s = 7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICAL REVIEW D, vol.87, no.1, 2013 (SCI-Expanded)
- CLXXIII. **Search for new physics in events with opposite-sign leptons, jets, and missing transverse energy in pp collisions at root s=7 TeV**  
Chatrchyan S., Collaboration C. M. S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.718, no.3, pp.815-840, 2013 (SCI-Expanded)
- CLXXIV. **Measurement of the differential and double-differential Drell-Yan cross sections in proton-proton collisions at  $\sqrt{s} = 7$  TeV**  
Chatrchyan S., 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, vol.2013, no.12, 2013 (SCI-Expanded)
- CLXXV. **Search for heavy lepton partners of neutrinos in proton-proton collisions in the context of the type III seesaw mechanism**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.718, no.2, pp.348-368, 2012 (SCI-Expanded)
- CLXXVI. **Search for third-generation leptoquarks and scalar bottom quarks in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Erö J., Fabjan C., et al.  
JOURNAL OF HIGH ENERGY PHYSICS, no.12, 2012 (SCI-Expanded)
- CLXXVII. **Observation of Z decays to four leptons with the CMS detector at the LHC**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Erö J., Fabjan C., et al.  
JOURNAL OF HIGH ENERGY PHYSICS, no.12, 2012 (SCI-Expanded)
- CLXXVIII. **Search for pair produced fourth-generation up-type quarks in pp collisions at root s=7 TeV with a lepton in the final state**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Ero J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.718, no.2, pp.307-328, 2012 (SCI-Expanded)
- CLXXIX. **Measurement of jet fragmentation into charged particles in pp and PbPb collisions at  $\sqrt{s} NN = 2:76$  TeV**  
Chatrchyan S., 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, vol.2012, no.10, 2012 (SCI-Expanded)
- CLXXX. **Search for exclusive or semi-exclusive gamma gamma production and observation of exclusive and semi-exclusive  $e(+ )e(- )$  production in pp collisions at root s=7 TeV**  
Chatrchyan S., 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, no.11, 2012 (SCI-Expanded)
- CLXXXI. **A search for a doubly-charged Higgs boson in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.72, no.11, 2012 (SCI-Expanded)
- CLXXXII. **Search for a  $W'$  or Techni-rho Decaying into WZ in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroe J., Fabjan C., et al.

- PHYSICAL REVIEW LETTERS, vol.109, no.14, 2012 (SCI-Expanded)
- CLXXXIII. **Measurement of the top-quark mass in  $t(\bar{t})$  events with dilepton final states in pp collisions at  $\sqrt{s}=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroo J., Fabjan C., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.72, no.10, 2012 (SCI-Expanded)
- CLXXXIV. **Search for charge-asymmetric production of  $W^\pm$  bosons in  $t(\bar{t})$  plus jet events from pp collisions at  $\sqrt{s}=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.717, pp.351-370, 2012 (SCI-Expanded)
- CLXXXV. **Search for supersymmetry in events with b-quark jets and missing transverse energy in pp collisions at 7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroo J., Fabjan C., et al.  
PHYSICAL REVIEW D, vol.86, no.7, 2012 (SCI-Expanded)
- CLXXXVI. **Search for heavy Majorana neutrinos in  $\mu(+/-)\mu(+/-)$  + jets and  $e(+/-)e(+/-)$  + jets events in pp collisions at  $\sqrt{s}=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroo J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.717, pp.109-128, 2012 (SCI-Expanded)
- CLXXXVII. **Search for supersymmetry in hadronic final states using M-T2 in pp collisions at  $\sqrt{s}=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
JOURNAL OF HIGH ENERGY PHYSICS, no.10, 2012 (SCI-Expanded)
- CLXXXVIII. **Measurement of the Pseudorapidity and Centrality Dependence of the Transverse Energy Density in Pb-Pb Collisions at  $\sqrt{s(NN)}=2.76$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.109, no.15, 2012 (SCI-Expanded)
- CLXXXIX. **Study of the inclusive production of charged pions, kaons, and protons in pp collisions at  $\sqrt{s}=0.9, 2.76,$  and 7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroo J., Fabjan C., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.72, no.10, 2012 (SCI-Expanded)
- CXC. **Performance of CMS muon reconstruction in pp collision events at  $\sqrt{s}=7$ TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
JOURNAL OF INSTRUMENTATION, vol.7, 2012 (SCI-Expanded)
- CXCI. **Inclusive and differential measurements of the  $t(\bar{t})$  charge asymmetry in proton-proton collisions  $\sqrt{s}=7$  TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroo J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.717, pp.129-150, 2012 (SCI-Expanded)
- CXCII. **Search for New Physics in the Multijet and Missing Transverse Momentum Final State in Proton-Proton Collisions at  $\sqrt{s}=7$  TeV**  
Chatrchyan S., Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., et al.  
PHYSICAL REVIEW LETTERS, vol.109, no.17, 2012 (SCI-Expanded)
- CXCIII. **Search for heavy, top-like quark pair production in the dilepton final state in pp collisions at  $\sqrt{s}=7$  TeV**

- Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.716, no.1, pp.103-121, 2012 (SCI-Expanded)
- CXCIV. **Search for a Light Pseudoscalar Higgs Boson in the Dimuon Decay Channel in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.109, no.12, 2012 (SCI-Expanded)
- CXCV. **Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroo J., Fabjan C., et al.  
PHYSICS LETTERS B, vol.716, no.1, pp.30-61, 2012 (SCI-Expanded)
- CXCVI. **Measurement of the Electron Charge Asymmetry in Inclusive W Production in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.109, no.11, 2012 (SCI-Expanded)
- CXCVII. **Search for pair production of first- and second-generation scalar leptoquarks in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Eroo J., Fabjan C., et al.  
PHYSICAL REVIEW D, vol.86, no.5, 2012 (SCI-Expanded)
- CXCVIII. **Measurement of the underlying event in the Drell-Yan process in proton-proton collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.72, no.9, 2012 (SCI-Expanded)
- CXCIX. **Search for a fermiophobic Higgs boson in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Erö J., Fabjan C., et al.  
JOURNAL OF HIGH ENERGY PHYSICS, no.9, 2012 (SCI-Expanded)
- CC. **Search for high-mass resonances decaying into tau-lepton pairs in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.716, no.1, pp.82-102, 2012 (SCI-Expanded)
- CCI. **Search for dark matter and large extra dimensions in monojet events in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Aguilo E., Bergauer T., Dragicevic M., Erö J., Fabjan C., et al.  
JOURNAL OF HIGH ENERGY PHYSICS, no.9, 2012 (SCI-Expanded)
- CCII. **Search for physics beyond the standard model in events with a Z boson, jets, and missing transverse energy in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.716, no.2, pp.260-284, 2012 (SCI-Expanded)
- CCIII. **Study of W boson production in PbPb and pp collisions at root s(NN)=2.76 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.715, pp.66-87, 2012 (SCI-Expanded)
- CCIV. **Search for New Physics with Same-Sign Isolated Dilepton Events with Jets and Missing Transverse Energy**

- Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.109, no.7, 2012 (SCI-Expanded)
- CCV. **Azimuthal Anisotropy of Charged Particles at High Transverse Momenta in Pb-Pb Collisions at root S-NN=2.76 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.109, no.2, 2012 (SCI-Expanded)
- CCVI. **Search for heavy long-lived charged particles in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.713, pp.408-433, 2012 (SCI-Expanded)
- CCVII. **Search for Dark Matter and Large Extra Dimensions in pp Collisions Yielding a Photon and Missing Transverse Energy**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.108, no.26, 2012 (SCI-Expanded)
- CCVIII. **Measurement of the mass difference between top and antitop quarks**  
Chatrchyan S., 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, no.6, 2012 (SCI-Expanded)
- CCIX. **Measurement of the  $t(\bar{t})$  production cross section in pp collisions at root s=7 TeV in dilepton final states containing a tau**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW D, vol.85, no.11, 2012 (SCI-Expanded)
- CCX. **Search for neutral Higgs bosons decaying to tau pairs in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.713, no.2, pp.68-90, 2012 (SCI-Expanded)
- CCXI. **Observation of a New Xi(b) Baryon**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.108, no.25, 2012 (SCI-Expanded)
- CCXII. **Centrality dependence of dihadron correlations and azimuthal anisotropy harmonics in PbPb collisions at root s(NN)=2.76 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.72, no.5, 2012 (SCI-Expanded)
- CCXIII. **Search for large extra dimensions in dimuon and dielectron events in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.711, no.1, pp.15-34, 2012 (SCI-Expanded)
- CCXIV. **Search for the standard model Higgs boson decaying to bottom quarks in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.710, no.2, pp.284-306, 2012 (SCI-Expanded)
- CCXV. **Measurement of isolated photon production in pp and PbPb collisions at root s(NN)=2.76 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroo J., Fabjan C., Friedl M., et al.

- PHYSICS LETTERS B, vol.710, no.2, pp.256-277, 2012 (SCI-Expanded)
- CCXVI. **Search for the standard model Higgs boson decaying into two photons in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.710, no.3, pp.403-425, 2012 (SCI-Expanded)
- CCXVII. **Search for the Standard Model Higgs Boson in the Decay Channel  $H \rightarrow ZZ \rightarrow 4l$  in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.108, no.11, 2012 (SCI-Expanded)
- CCXVIII. **Search for the standard model Higgs boson decaying to  $W+W-$  in the fully leptonic final state in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.710, no.1, pp.91-113, 2012 (SCI-Expanded)
- CCXIX. **Search for Signatures of Extra Dimensions in the Diphoton Mass Spectrum at the Large Hadron Collider**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.108, no.11, 2012 (SCI-Expanded)
- CCXX. **Measurement of the charge asymmetry in top-quark pair production in proton-proton collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.709, pp.28-49, 2012 (SCI-Expanded)
- CCXXI. **Study of high-p(T) charged particle suppression in PbPb compared to pp collisions at root s(NN)=2.76 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.72, no.3, 2012 (SCI-Expanded)
- CCXXII. **Combined results of searches for the standard model Higgs boson in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.710, no.1, pp.26-48, 2012 (SCI-Expanded)
- CCXXIII. **Measurement of the rapidity and transverse momentum distributions of Z bosons in pp collisions at root(s)=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW D, vol.85, no.3, 2012 (SCI-Expanded)
- CCXXIV. **Inclusive search for squarks and gluinos in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW D, vol.85, no.1, 2012 (SCI-Expanded)
- CCXXV. **Performance of tau-lepton reconstruction and identification in CMS**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
JOURNAL OF INSTRUMENTATION, vol.7, 2012 (SCI-Expanded)
- CCXXVI. **Forward energy flow, central charged-particle multiplicities, and pseudorapidity gaps in W and Z boson events from pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C.,

- Friedl M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.72, no.1, 2012 (SCI-Expanded)
- CCXXVII. **Measurement of the weak mixing angle with the Drell-Yan process in proton-proton collisions at the LHC**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW D, vol.84, no.11, 2011 (SCI-Expanded)
- CCXXVIII. **Measurement of the underlying event activity at the LHC with  $\sqrt{s} = 7$  TeV and comparison with  $\sqrt{s} = 0:9$  TeV**  
Chatrchyan S., 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, vol.2011, no.9, 2011 (SCI-Expanded)
- CCXXIX. **Search for light resonances decaying into pairs of muons as a signal of new physics**  
Chatrchyan S., 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, vol.2011, no.7, 2011 (SCI-Expanded)
- CCXXX. **Search for Supersymmetry at the LHC in Events with Jets and Missing Transverse Energy**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.107, no.22, 2011 (SCI-Expanded)
- CCXXXI. **Measurement of the inclusive W and Z production cross sections in pp collisions at  $\sqrt{s} = 7$  TeV with the CMS experiment**  
Chatrchyan S., 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, vol.2011, no.10, 2011 (SCI-Expanded)
- CCXXXII. **Measurement of the  $t(\bar{t})$  production cross section in pp collisions at 7 TeV in lepton plus jets events using b-quark jet identification**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW D, vol.84, no.9, 2011 (SCI-Expanded)
- CCXXXIII. **Search for New Physics with a Monojet and Missing Transverse Energy in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.107, no.20, 2011 (SCI-Expanded)
- CCXXXIV. **Determination of jet energy calibration and transverse momentum resolution in CMS**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., et al.  
JOURNAL OF INSTRUMENTATION, vol.6, 2011 (SCI-Expanded)
- CCXXXV. **Search for  $B\text{-}s(0) \rightarrow \mu^{+}\mu^{-}$  and  $B\text{-}0 \rightarrow \mu^{+}\mu^{-}$  Decays in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.107, no.19, 2011 (SCI-Expanded)
- CCXXXVI. **A search for excited leptons in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.704, no.3, pp.143-162, 2011 (SCI-Expanded)
- CCXXXVII. **Measurement of the differential cross section for isolated prompt photon production in pp collisions at 7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroë J., Fabjan C., Friedl M., et al.

- PHYSICAL REVIEW D, vol.84, no.5, 2011 (SCI-Expanded)
- :CXXXVIII. **Measurement of the B-s(0) Production Cross Section with B-s(0) -> J/psi phi Decays in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW D, vol.84, no.5, 2011 (SCI-Expanded)
- CCXXXIX. **Search for first generation scalar leptoquarks in the e nu jj channel in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.703, no.3, pp.246-266, 2011 (SCI-Expanded)
- CCXL. **Search for Three-Jet Resonances in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.107, no.10, 2011 (SCI-Expanded)
- CCXLI. **Measurement of the t-Channel Single Top Quark Production Cross Section in pp Collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.107, no.9, 2011 (SCI-Expanded)
- CCXLII. **Measurement of the ratio of the 3-jet to 2-jet cross sections in pp collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.702, no.5, pp.336-354, 2011 (SCI-Expanded)
- CCXLIII. **Indications of Suppression of Excited Upsilon States in Pb-Pb Collisions at root(NN)-N-s=2.76 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.107, no.5, 2011 (SCI-Expanded)
- CCXLIV. **Measurement of the Polarization of W Bosons with Large Transverse Momenta in W plus jets Events at the LHC**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICAL REVIEW LETTERS, vol.107, no.2, 2011 (SCI-Expanded)
- CCXLV. **Measurement of the differential dijet production cross section in proton-proton collisions at root s=7 TeV**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.  
PHYSICS LETTERS B, vol.700, pp.187-206, 2011 (SCI-Expanded)
- CCXLVI. **Measurement of Dijet Angular Distributions and Search for Quark Compositeness in pp Collisions at root s=7 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Fabjan C., Friedl M., Fruehwirth R., Ghehe V. M., et al.  
PHYSICAL REVIEW LETTERS, vol.106, no.20, 2011 (SCI-Expanded)
- CCXLVII. **Search for Pair Production of First-Generation Scalar Leptoquarks in pp Collisions at root s=7 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
PHYSICAL REVIEW LETTERS, vol.106, no.20, 2011 (SCI-Expanded)
- CCXLVIII. **First measurement of hadronic event shapes in pp collisions at root s=7 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
PHYSICS LETTERS B, vol.699, pp.48-67, 2011 (SCI-Expanded)
- CCXLIX. **Measurement of W+W- production and search for the Higgs boson in pp collisions at root s=7 TeV**



- Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al  
PHYSICS LETTERS B, vol.699, pp.25-47, 2011 (SCI-Expanded)
- CCL. **Search for supersymmetry in pp collisions at 7 TeV in events with jets and missing transverse energy**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICS LETTERS B, vol.698, no.3, pp.196-218, 2011 (SCI-Expanded)
- CCLI. **Search for a heavy gauge boson  $W'$  in the final state with an electron and large missing transverse energy in pp collisions at  $\sqrt{s}=7$  TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICS LETTERS B, vol.698, no.1, pp.21-39, 2011 (SCI-Expanded)
- CCLII. **Dijet Azimuthal Decorrelations in pp Collisions at  $\sqrt{s}=7$  TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICAL REVIEW LETTERS, vol.106, no.12, 2011 (SCI-Expanded)
- CCLIII. **Search for microscopic black hole signatures at the Large Hadron Collider**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICS LETTERS B, vol.697, no.5, pp.434-453, 2011 (SCI-Expanded)
- CCLIV. **Measurement of the  $B^+$  Production Cross Section in pp Collisions at  $\sqrt{s}=7$  TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICAL REVIEW LETTERS, vol.106, no.11, 2011 (SCI-Expanded)
- CCLV. **Measurement of the Isolated Prompt Photon Production Cross Section in pp Collisions at  $\sqrt{s}=7$  TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Ero J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICAL REVIEW LETTERS, vol.106, no.8, 2011 (SCI-Expanded)
- CCLVI. **First measurement of the cross section for top-quark pair production in proton-proton collisions at  $\sqrt{s}=7$  TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICS LETTERS B, vol.695, no.5, pp.424-443, 2011 (SCI-Expanded)
- CCLVII. **Search for Stopped Gluinos in pp Collisions at  $\sqrt{s}=7$  TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICAL REVIEW LETTERS, vol.106, no.1, 2011 (SCI-Expanded)
- CCLVIII. **Measurement of the Drell-Yan cross section in pp collisions at  $\sqrt{s}=7$  TeV**  
Chatrchyan S., 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, vol.2011, no.10, 2011 (SCI-Expanded)
- CCLIX. **Search for Quark Compositeness with the Dijet Centrality Ratio in pp Collisions at  $\sqrt{s}=7$  TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al  
PHYSICAL REVIEW LETTERS, vol.105, no.26, 2010 (SCI-Expanded)
- CCLX. **Observation of long-range, near-side angular correlations in proton-proton collisions at the LHC**  
Khachatryan V., Sirunyan A., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Erö J., Fabjan C., Friedl M., Fruehwirth R., et al  
Journal of High Energy Physics, vol.2010, no.9, 2010 (SCI-Expanded)

- CCLXI. **First measurement of the underlying event activity at the LHC with root s=0.9 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.70, no.3, pp.555-572, 2010 (SCI-Expanded)
- CCLXII. **CMS tracking performance results from early LHC operation**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.70, no.4, pp.1165-1192, 2010 (SCI-Expanded)
- CCLXIII. **Search for Dijet Resonances in 7 TeV pp Collisions at CMS**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
PHYSICAL REVIEW LETTERS, vol.105, no.21, 2010 (SCI-Expanded)
- CCLXIV. **Measurement of the charge ratio of atmospheric muons with the CMS detector**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
PHYSICS LETTERS B, vol.692, no.2, pp.83-104, 2010 (SCI-Expanded)
- CCLXV. **Transverse-Momentum and Pseudorapidity Distributions of Charged Hadrons in pp Collisions at root s=7 TeV**  
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., Fruehwirth R., et al.  
PHYSICAL REVIEW LETTERS, vol.105, no.2, 2010 (SCI-Expanded)
- CCLXVI. **Performance studies of a full-length prototype for the CASTOR forward calorimeter at the CMS experiment**  
Andreev V., Aslanoglou X., Azman A., Bakirci M. N., Basegmez S., Beaumont W., Blocki J., Borrás K., Campbell A., ÇERÇİ S., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.67, pp.601-615, 2010 (SCI-Expanded)
- CCLXVII. **Performance of the CMS drift tube chambers with cosmic rays**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXVIII. **Aligning the CMS muon chambers with the muon alignment system during an extended cosmic ray run**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Ero J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXIX. **Performance of the CMS Level-1 trigger during commissioning with cosmic ray muons and LHC beams**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXX. **Performance of the CMS drift-tube chamber local trigger with cosmic rays**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXI. **Commissioning of the CMS experiment and the cosmic run at four tesla**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXII. **Identification and filtering of uncharacteristic noise in the CMS hadron calorimeter**  
Chatrchyan S., Khachatryan V., Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.

- JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXIII. **Fine synchronization of the CMS muon drift-tube local trigger using cosmic rays**  
Chatrchyan S, Khachatryan V, Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXIV. **Precise mapping of the magnetic field in the CMS barrel yoke using cosmic rays**  
Chatrchyan S, Khachatryan V, Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXV. **Alignment of the CMS muon system with cosmic-ray and beam-halo muons**  
Chatrchyan S, Khachatryan V, Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXVI. **Commissioning of the CMS High-Level Trigger with cosmic rays**  
Chatrchyan S, Khachatryan V, Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXVII. **Performance study of the CMS barrel resistive plate chambers with cosmic rays**  
Chatrchyan S, Khachatryan V, Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- :CLXXVIII. **Calibration of the CMS drift tube chambers and measurement of the drift velocity with cosmic rays**  
Chatrchyan S, Khachatryan V, Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXIX. **Performance of CMS muon reconstruction in cosmic-ray events**  
Chatrchyan S, Khachatryan V, Sirunyan A. M., Adam W., Arnold B., Bergauer H., Bergauer T., Dragicevic M., Eichberger M., Eroe J., et al.  
JOURNAL OF INSTRUMENTATION, vol.5, 2010 (SCI-Expanded)
- CCLXXX. **CMS Data Processing Workflows during an Extended Cosmic Ray Run**  
EŞKUT E., DUMANOĞLU İ., KAYIŞ TOPAKSU A., ÖNENGÜT G., POLATÖZ A.  
JOURNAL OF INSTRUMENTATION, vol.5, pp.1-43, 2010 (SCI-Expanded)
- CCLXXXI. **Design, performance, and calibration of CMS hadron-barrel calorimeter wedges**  
Abdullin S., Abramov V., Acharya B., Adams M., Akchurin N., Akgun U., Anderson E. W., Antchev G., Ayan S., Aydin S., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.55, no.1, pp.159-171, 2008 (SCI-Expanded)
- CCLXXXII. **The CMS high level trigger**  
Adam W., Bergauer T., Deldicque C., Ero J., Fruehwirth R., Jeitler M., Kastner K., Kostner S., Neumeister N., Padrta M., et al.  
EUROPEAN PHYSICAL JOURNAL C, vol.46, no.3, pp.605-667, 2006 (SCI-Expanded)
- :CLXXXIII. **Energy resolution and the linearity of the CMS forward quartz fibre calorimeter pre-production-prototype (PPP-1)**  
Ayan A., Akchurin N., Akgun U., Anderson E., Bagoly Z., Bencze G., Bruecken P., Debreczeni G., Dumanoglu I., Eskut E., et al.  
JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS, vol.30, no.12, 2004 (SCI-Expanded)
- :CLXXXIV. **Radiation-hardness studies of high OH- content quartz fibres irradiated with 500 MeV electrons**  
Dumanoglu I., Akchurin N., Akgun U., Ayan S., Bruecken P., Eskut E., Fenyvesi A., Topkasu A., Koca N., Makonyi K., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.490, no.3, pp.444-455, 2002 (SCI-Expanded)
- CCLXXXV. **Effects of radiation and their consequences for the performance of the forward calorimeters in the**

## **CMS experiment**

Akchurin N., Ayan A., Bencze G., Dumanoglu I., Eskut E., Fenyvesi A., Ferrando A., Gavrilo V., Hajdu C., Josa M., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH  
MATERIALS AND ATOMS, vol.187, no.1, pp.66-78, 2002 (SCI-Expanded)

**:CLXXXVI. Electromagnetic shower profile measurements in iron with 500 MeV electrons**

Akchurin N., Ayan A., Conan N., Dumanoglu I., Fontaine A., Merlo J., Muller A., Rinolfi L.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS  
DETECTORS AND ASSOCIATED EQUIPMENT, vol.471, no.3, pp.303-313, 2001 (SCI-Expanded)

**CLXXXVII. Test beam results of CMS quartz fibre calorimeter prototype and simulation of response to high energy hadron jets**

Akchurin N., Ayan S., Bencze G., Chikin K., Cohn H., Doulas S., Dumanoglu I., Eskut E., Fenyvesi A., Ferrando A., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS  
DETECTORS AND ASSOCIATED EQUIPMENT, vol.409, pp.593-597, 1998 (SCI-Expanded)

**:LXXXVIII. On the differences between high-energy proton and pion showers and their signals in a non-compensating calorimeter**

Akchurin N., Ayan S., Bencze G., Chikin K., Cohn H., Doulas S., Dumanoglu I., Eskut E., Fenyvesi A., Ferrando A., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS  
DETECTORS AND ASSOCIATED EQUIPMENT, vol.408, pp.380-396, 1998 (SCI-Expanded)

**:CLXXXIX. Test beam of a quartz-fibre calorimeter prototype with a passive front section**

Akchurin N., Ayan S., Bencze G., Chikin K., Cohn H., Doulas S., Dumanoglu I., Eskut E., Fenyvesi A., Ferrando A., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS  
DETECTORS AND ASSOCIATED EQUIPMENT, vol.400, pp.267-278, 1997 (SCI-Expanded)

**CCXC. Beam test results from a fine-sampling quartz fiber calorimeter for electron, photon and hadron detection**

Akchurin N., Ayan S., Bencze G., Chikin K., Cohn H., Doulas S., Dumanoglu I., Eskut E., Fenyvesi A., Ferrando A., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS  
DETECTORS AND ASSOCIATED EQUIPMENT, vol.399, pp.202-226, 1997 (SCI-Expanded)

## **Articles Published in Other Journals**

- 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, vol.8, no.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, vol.8, no.1, 2024 (Scopus)
- III. **CMS DETEKTÖRÜNÜN HF KALORİMETRESİNDE YENİLENEN FÇT LERİN PERFORMANS ANALİZİ**  
LEZKİ S., DUMANOĞLU İ.  
FEN ve MÜHENDİSLİK BİLİMLERİ DERGİSİ, vol.34, no.2, pp.111-120, 2016 (Peer-Reviewed Journal)
- IV. **Analyses Of Hb He Ho And Hf Calorimeters Of Cms Detector With 2015 Cosmic Data And Proton Proton Collison Data At S 13 Tev**  
İNCE M., DUMANOĞLU İ.  
FEN ve MÜHENDİSLİK BİLİMLERİ DERGİSİ, vol.34, no.2, 2016 (Peer-Reviewed Journal)

## **Papers Published in Refereed Scientific Meetings**

- I. **Search for new Physics in Final States with an Energetic Jet or a Hadronically Decaying W or Z**

### **Boson Using 35.9 fb-1 od Data at 13 TeV**

YALÇIN G., TALİ B., DUMANOĞLU İ.

TÜRK FİZİK DERNEĞİ 33. ULUSLARARASI FİZİK KONGRESİ, 6 - 10 September 2017

### **II. First CMS Results at 13 TeV**

Ronchese P., ÖZDEMİR K., HOŞ İ., ADIGÜZEL A., GÖKBULUT G., DUMANOĞLU İ., EŞKUT E., POLATÖZ A., KAYIŞ TOPAKSU A., CMS C.

MESON 2016, 2 - 07 June 2016, vol.130, pp.1029

### **III. Z W jets production at 8 13 TeV in CMS**

ÖCALAN K., ÖZDEMİR K., HOŞ İ., ADIGÜZEL A., KANGAL E. E., DUMANOĞLU İ., EŞKUT E., GÖKBULUT G., KAYIŞ TOPAKSU A., POLATÖZ A., et al.

QCD@Work 2016, 27 - 30 June 2016, vol.129, pp.2

### **IV. Recent forward physics and diffraction results from CMS**

Veres G., ÖZDEMİR K., HOŞ İ., ADIGÜZEL A., GÖKBULUT G., DUMANOĞLU İ., EŞKUT E., POLATÖZ A., KAYIŞ TOPAKSU A., CMS C.

ISMD 2015, 4 - 09 October 2015, vol.120, pp.2003

### **V. Higgs to tau tau Anaysis in the CMS experiment**

Olszewski M., ÖZDEMİR K., HOŞ İ., ADIGÜZEL A., KANGAL E. E., DUMANOĞLU İ., EŞKUT E., GÖKBULUT G., POLATÖZ A., KAYIŞ TOPAKSU A., et al.

Ephiphany 2016 Conference, 7 - 09 January 2016, vol.47, pp.1697-1703

### **VI. Standard Model Results of CMS at 13 TeV**

Ahmad M., HOŞ İ., ADIGÜZEL A., ÖZDEMİR K., KANGAL E. E., EŞKUT E., DUMANOĞLU İ., KAYIŞ TOPAKSU A., Collaboration C.

Ephiphany 2016 Conference, 7 - 09 January 2016, vol.47, pp.1365-1377

### **VII. Heavy Ion Results of the CMS experiment**

Boimska B., ÖZDEMİR K., HOŞ İ., ADIGÜZEL A., KANGAL E. E., DUMANOĞLU İ., EŞKUT E., POLATÖZ A., GÖKBULUT G., KAYIŞ TOPAKSU A., et al.

Ephiphany 2016 Conference, 7 - 09 January 2016, vol.47, pp.1397-1415

### **VIII. MPI and UE corrections to jet measuremnets and influence on PDF determination and alfas**

ÇERÇİ S., BAKIRCI M. N., SUNAR ÇERÇİ D., KANGAL E. E., GÖKBULUT G., EŞKUT E., DUMANOĞLU İ., POLATÖZ A., KAYIŞ TOPAKSU A., CMS C.

MPI@LHC 2015, 23 - 27 November 2015

### **IX. Computer supported physics experiments**

Istanbul D. N., DUMANOĞLU İ.

6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.517-518

### **X. A testing setup for the quality control measurements of phototubes for CMS-CASTOR calorimeter**

DUMANOĞLU İ., Onengut G., SÖĞÜT K.

6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.221-222

## **Supported Projects**

DUMANOĞLU İ., Project Supported by Higher Education Institutions, CMS deneyinde proton-proton çarpışma verileriyle karanlık madde analizleri, 2017 - 2021

DUMANOĞLU İ., GÜLER Y., Project Supported by Higher Education Institutions, SEARCH FOR FERMION PORTAL DARK MATTER AND LARGE EXTRA DIMENSION PRODUCED WITH JETS AND MISSING TRANSVERSE ENERGY IN PROTON - PROTON COLLISIONS AT  $\sqrt{s} = 13$  TeV, 2015 - 2019

DUMANOĞLU İ., Işık H. H., Project Supported by Higher Education Institutions, CMS'in ileri? hadronik kalori?metresi?nde kullanılan QIE10 kartlarının LED, faz ve giriş direnci seçimi testleri, 2016 - 2018

DUMANOĞLU İ., DAMARSEÇKİN S., Project Supported by Higher Education Institutions, SEARCH FOR NEWPARTICLES

DECAYING TO DIJET AT 713 TEV PROTON-PROTON COLLISIONS WITH DATA SCOUTING TECHNIQUE AT CMS, 2015 - 2018

DUMANOĞLU İ., Şimşek A. E., Project Supported by Higher Education Institutions, CMSin Hadronik Kalorimetresinin 2016 Verileriyle Performans Analizi, 2016 - 2017

DUMANOĞLU İ., Project Supported by Higher Education Institutions, CMS'te karanlık madde arařtırmaları, 2015 - 2017

DUMANOĞLU İ., Lezki S., Project Supported by Higher Education Institutions, CMS detektörünün HF kalorimetresinde yenilene FÇTlerinin alınan verileri kullanarak performans analizi, 2015 - 2016

DUMANOĞLU İ., İnce M., Project Supported by Higher Education Institutions, CMS detektöründe HB, HE, HO kalorimetrelerinin 2013 -2014 kozmik verileri ile arařtırılması, 2015 - 2016

DUMANOĞLU İ., Project Supported by Higher Education Institutions, CMS Deneyinde Veri Analizi, 2014 - 2015

## **Metrics**

Publication: 304

Citation (WoS): 21674

Citation (Scopus): 16024

H-Index (WoS): 64

H-Index (Scopus): 73