CMS Publications

April 11, 2019

• 896. Measurement of $t\bar{t}$ normalised multi-differential cross sections in pp collisions at $\sqrt{s} = 13$ TeV, and simultaneous determination of the strong coupling strength, top quark pole mass, and parton distribution functions, Submitted to EPJC, arXiv:1904.05237.

• 895. Search for resonances decaying to a pair of Higgs bosons in the $b\bar{b}q\bar{q}^\prime \ell\nu$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV, Submitted to JHEP.


• 892. Search for a low-mass $\tau^-\tau^+$ resonance in association with a bottom quark in proton-proton collisions at $\sqrt{s} = 13$ TeV, Submitted to JHEP, arXiv:1903.10228.


• 890. Constraints on anomalous HVV couplings from the production of Higgs bosons decaying to $\tau$ lepton pairs, Submitted to PRD, arXiv:1903.06973.


• 888. Search for charged Higgs bosons in the $H^\pm \rightarrow \tau^\pm \nu_\tau$ decay channel in proton-proton collisions at $\sqrt{s} = 13$ TeV, Submitted to JHEP, arXiv:1903.04560.

• 886. An embedding technique to determine $\tau\tau$ backgrounds in proton-proton collision data, Submitted to JINST, arXiv:1903.01216.

• 885. Search for a heavy pseudoscalar boson decaying to a $Z$ and a Higgs boson at $\sqrt{s} = 13$ TeV, Submitted to EPJC, arXiv:1903.00941.

• 884. Combinations of single-top-quark production cross-section measurements and $|f_{LV} V_{tb}|$ determinations at $\sqrt{s} = 7$ and 8 TeV with the ATLAS and CMS experiments, Submitted to JHEP, arXiv:1902.07158.


• 881. Measurement of exclusive $\rho(770)^0$ photoproduction in ultraperipheral pPb collisions at $\sqrt{b_{NN}} = 5.02$ TeV, Submitted to EPJC, arXiv:1902.01339.


• 879. Search for W boson decays to three charged pions, Accepted by PRL, arXiv:1901.11201.

• 878. Charged-particle angular correlations in XeXe collisions at $\sqrt{b_{NN}} = 5.44$ TeV, Submitted to PRC, arXiv:1901.07997.


• 875. Measurements of the $pp \rightarrow WZ$ inclusive and differential production cross section and constraints on charged anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV, Accepted by JHEP, arXiv:1901.03428.

• 873. Search for the pair production of light top squarks in the $e^\pm \mu^\mp$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV; 

• 872. Measurements of the Higgs boson width and anomalous HVV couplings from on-shell and off-shell production in the four-lepton final state, 
Accepted by PRD, arXiv:1901.00174.

• 871. Measurement of the top quark mass in the all-jets final state at $\sqrt{s} = 13$ TeV and combination with the lepton+jets channel, 

• 870. Measurement of the $t\bar{t}$ production cross section, the top quark mass, and the strong coupling constant using dilepton events in pp collisions at $\sqrt{s} = 13$ TeV, 
Accepted by EPJC, arXiv:1812.10505.

• 869. Measurement of the single top quark and antiquark production cross sections in the $t$ channel and their ratio in proton-proton collisions at $\sqrt{s} = 13$ TeV, 

• 868. Measurement of the differential Drell-Yan cross section in proton-proton collisions at $\sqrt{s} = 13$ TeV, 

• 867. Search for contact interactions and large extra dimensions in the dilepton mass spectra from proton-proton collisions at $\sqrt{s} = 13$ TeV, 
Accepted by JHEP, arXiv:1812.10443.

• 866. Search for vector-like quarks in events with two oppositely charged leptons and jets in proton-proton collisions at $\sqrt{s} = 13$ TeV, 
Accepted by EPJC, arXiv:1812.09768.

• 865. Search for a heavy resonance decaying to a top quark and a vector-like top quark in the lepton+jets final state in pp collisions at $\sqrt{s} = 13$ TeV, 

• 864. Measurement and interpretation of differential cross sections for Higgs boson production at $\sqrt{s} = 13$ TeV, 
Accepted by PLB, arXiv:1812.06504.

• 863. Inclusive search for supersymmetry in pp collisions at $\sqrt{s} = 13$ TeV using razor variables and boosted object identification in zero and one lepton final states, 

• 862. Search for an exotic decay of the Higgs boson to a pair of light pseudoscalars in the final state with two muons and two b quarks in pp collisions at 13 TeV, 


• 859. Measurement of the energy density as a function of pseudorapidity in proton-proton collisions at $\sqrt{s} = 13$ TeV, Accepted by EPJC, arXiv:1812.04095.

• 858. Measurement of inclusive very forward jet cross sections in proton-lead collisions at $\sqrt{b_{\text{NN}}} = 5.02$ TeV, Submitted to JHEP, arXiv:1812.01691.


• 851. 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 $\sqrt{s} = 8$ and 13 TeV, Accepted by PLB, arXiv:1811.08459.


• 848. Search for a W' boson decaying to a vector-like quark and a top or bottom quark in the all-jets final state.

• 847. Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at \( \sqrt{s} = 13 \) TeV.

• 846. Search for excited leptons in \( \ell \ell \gamma \) final states in proton-proton collisions at \( \sqrt{s} = 13 \) TeV.

• 845. Search for pair production of first-generation scalar leptoquarks at \( \sqrt{s} = 13 \) TeV.

• 844. Search for heavy neutrinos and third-generation leptoquarks in hadronic states of two \( \tau \) leptons and two jets in proton-proton collisions at \( \sqrt{s} = 13 \) TeV.

• 843. Event shape variables measured using multijet final states in proton-proton collisions at \( \sqrt{s} = 13 \) TeV.

• 842. Search for nonresonant Higgs boson pair production in the \( bb \bar{b}b \) final state at \( \sqrt{s} = 13 \) TeV.
Accepted by JHEP, arXiv:1810.11854.

• 841. Search for low-mass resonances decaying into bottom quark-antiquark pairs in proton-proton collisions at \( \sqrt{s} = 13 \) TeV.

• 840. Studies of beauty suppression via nonprompt D⁰ mesons in PbPb collisions at \( \sqrt{\mathcal{S}}_{\text{NN}} = 5.02 \) TeV.

• 839. Search for rare decays of Z and Higgs bosons to J/ψ and a photon in proton-proton collisions at \( \sqrt{s} = 13 \) TeV.

• 838. Search for new particles decaying to a jet and an emerging jet.

• 837. Search for pair-produced three-jet resonances in proton-proton collisions at \( \sqrt{s} = 13 \) TeV.

• 836. Search for resonant \( t\bar{t} \) production in proton-proton collisions at \( \sqrt{s} = 13 \) TeV.
• 835. Centrality and pseudorapidity dependence of the transverse energy density in pPb collisions at $\sqrt{b|s_{NN}} = 5.02$ TeV, Submitted to PRC, arXiv:1810.05745.


• 832. Measurement of $B^0_s$ meson production in pp and PbPb collisions at $\sqrt{b|s_{NN}} = 5.02$ TeV, Submitted to PLB, arXiv:1810.03022.


• 827. Jet shapes of isolated photon-tagged jets in PbPb and pp collisions at $\sqrt{b|s_{NN}} = 5.02$ TeV, Accepted by PRL, arXiv:1809.08602.


• 825. Search for invisible decays of a Higgs boson produced through vector boson fusion in proton-proton collisions at $\sqrt{s} = 13$ TeV, Accepted by PLB, arXiv:1809.05937.


• 823. Search for the associated production of the Higgs boson and a vector boson in proton-proton collisions at $\sqrt{s} = 13$ TeV via Higgs boson decays to $\tau$ leptons, Submitted to JHEP, arXiv:1809.03590.
• 822. Studies of $B^*_2(5840)^0$ and $B_{s1}(5830)^0$ mesons including the observation of the $B^*_2(5840)^0 \rightarrow B^0 K^0_S$ decay in proton-proton collisions at $\sqrt{s} = 8$ TeV, EPJC 78 (2018) 939, arXiv:1809.03578.


• 807. Search for heavy resonances decaying into two Higgs bosons or into a Higgs boson and a W or Z boson in proton-proton collisions at 13 TeV, JHEP 01 (2019) 051, arXiv:1808.01365.


• 792. Search for the decay of a Higgs boson in the \( \ell\ell\gamma \) channel in proton-proton collisions at \( \sqrt{s} = 13 \) TeV, JHEP 11 (2018) 152, arXiv:1806.05996.


• 789. Search for dark matter produced in association with a Higgs boson decaying to \( \gamma \gamma \) or \( \tau^+\tau^- \) at \( \sqrt{s} = 13 \) TeV, JHEP 09 (2018) 046, arXiv:1806.04771.

• 788. Observation of the \( Z \to \psi\ell^+\ell^- \) decay in pp collisions at \( \sqrt{s} = 13 \) TeV, PRL 121 (2018) 141801, arXiv:1806.04213.


• 786. Search for a singly produced third-generation scalar leptoquark decaying to a \( \tau \) lepton and a bottom quark in proton-proton collisions at \( \sqrt{s} = 13 \) TeV, JHEP 07 (2018) 115, arXiv:1806.03472.


• 782. Angular analysis of the decay $B^+ \to K^+ \mu^+ \mu^-$ in proton-proton collisions at $\sqrt{s} = 8$ TeV, PRD 98 (2018) 112011, arXiv:1806.00636.

• 781. Search for Higgs boson pair production in the $\gamma\gamma b\bar{b}$ final state in pp collisions at $\sqrt{s} = 13$ TeV, PLB 788 (2018) 7, arXiv:1806.00408.


• 779. Observation of the $\chi_{b1}(3P)$ and $\chi_{b2}(3P)$ and measurement of their masses, PRL 121 (2018) 092002, arXiv:1805.11192.


• 776. Measurement of nuclear modification factors of $\Upsilon(1S)$, $\Upsilon(2S)$, and $\Upsilon(3S)$ mesons in PbPb collisions at $\sqrt{s}_{NN} = 5.02$ TeV, PLB 790 (2019) 270, arXiv:1805.09215.


• 768. Measurement of prompt $\psi(2S)$ production cross sections in proton-lead and proton-proton collisions at $\sqrt{b_sNN} = 5.02$ TeV, PLB 790 (2019) 509, arXiv:1805.02248.


• 762. Search for $t\bar{t}H$ production in the $H \rightarrow b\bar{b}$ decay channel with leptonic $tt$ decays in proton-proton collisions at $\sqrt{s} = 13$ TeV, JHEP 03 (2019) 026, arXiv:1804.03682.


• 760. Observation of $t\bar{t}H$ production, PRL 120 (2018) 231801, arXiv:1804.02610.


• 753. Search for t\( \bar{t} \)H production in the all-jet final state in proton-proton collisions at \( \sqrt{s} = 13 \) TeV, JHEP 06 (2018) 101, arXiv:1803.06986.

• 752. Search for additional neutral MSSM Higgs bosons in the \( \tau\tau \) final state in proton-proton collisions at \( \sqrt{s} = 13 \) TeV, JHEP 09 (2018) 007, arXiv:1803.06553.


• 750. Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying \( \tau \) leptons at \( \sqrt{s} = 13 \) TeV, JHEP 08 (2018) 066, arXiv:1803.05485.


• 747. Search for a heavy resonance decaying into a Z boson and a vector boson in the \( \nu\bar{\nu}q\bar{q} \) final state, JHEP 07 (2018) 075, arXiv:1803.03838.

• 746. Search for third-generation scalar leptoquarks decaying to a top quark and a \( \tau \) lepton at \( \sqrt{s} = 13 \) TeV, EPJC 78 (2018) 707, arXiv:1803.02864.


• 744. Search for a heavy resonance decaying to a pair of vector bosons in the lepton plus merged jet final state at \( \sqrt{s} = 13 \) TeV, JHEP 05 (2018) 088, arXiv:1802.09407.

• 742. Measurement of the $\Lambda_b$ polarization and angular parameters in $\Lambda_b \rightarrow J/\psi \Lambda$ decays from pp collisions at $\sqrt{s} = 7$ and 8 TeV, PRD 97 (2018) 072010, arXiv:1802.04867.


• 737. Search for lepton-flavor violating decays of heavy resonances and quantum black holes to $e\mu$ final states in proton-proton collisions at $\sqrt{s} = 13$ TeV, JHEP 04 (2018) 073, arXiv:1802.01122.


• 734. Observation of medium induced modifications of jet fragmentation in PbPb collisions at $\sqrt{b|s_{NN}} = 5.02$ TeV using isolated-photon-tagged jets, PRL 121 (2018) 242301, arXiv:1801.04895.


• 722. Search for the X(5568) state decaying into $B_0^s\pi^\pm$ in proton-proton collisions at $\sqrt{s} = 8$ TeV, PRL 120 (2018) 202005, arXiv:1712.06144.


• 716. Search for the flavor-changing neutral current interactions of the top quark and the Higgs boson which decays into a pair of b quarks at $\sqrt{s} = 13$ TeV, JHEP 06 (2018) 102, arXiv:1712.02399.


• 707. Measurement of the inclusive $t\bar{t}$ cross section in pp collisions at $\sqrt{s} = 5.02$ TeV using final states with at least one charged lepton, JHEP 03 (2018) 115, arXiv:1711.03143.


• 699. Pseudorapidity distributions of charged hadrons in proton-lead collisions at $\sqrt{\langle s_{NN} \rangle} = 5.02$ and 8.16 TeV, JHEP 01 (2018) 045, arXiv:1710.09355.


• 694. Search for a massive resonance decaying to a pair of Higgs bosons in the four b quark final state in proton-proton collisions at $\sqrt{s} = 13$ TeV, PLB 781 (2018) 244.

• 693. Measurement of angular parameters from the decay $B^0 \rightarrow K^{*0}\mu^+\mu^-$ in proton-proton collisions at $\sqrt{s} = 8$ TeV, PLB 781 (2018) 517, arXiv:1710.02846.


• 680. Combination of inclusive and differential $t\bar{t}$ charge asymmetry measurements using ATLAS and CMS data at $\sqrt{s} = 7$ and 8 TeV, JHEP 04 (2018) 033, arXiv:1709.05327.


• 676. Challenges to the chiral magnetic wave using charge-dependent azimuthal anisotropies in pPb and PbPb collisions at $\sqrt{b_s} = 5.02$ TeV, Submitted to PRL, arXiv:1708.08901.


• 669. Search for resonant and nonresonant Higgs boson pair production in the $b\bar{b}l\nu\ell\nu$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV, JHEP 01 (2018) 054, arXiv:1708.04188.


661. Search for the pair production of third-generation squarks with two-body decays to a bottom or charm quark and a neutralino in proton-proton collisions at \(\sqrt{s} = 13\) TeV, PLB 778 (2018) 263, arXiv:1707.07274.


655. Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at \(\sqrt{s} = 13\) TeV, EPJC 77 (2017) 636, arXiv:1707.01303.


653. A search for Higgs boson pair production in the \(b\bar{b}\tau\tau\) final state in proton-proton collisions at \(\sqrt{s} = 8\) TeV, PRD 96 (2017) 072004, arXiv:1707.00350.


• 647. Exclusive and semi-exclusive $\pi^+\pi^-$ production in proton-proton collisions at $\sqrt{s} = 7$ TeV, Submitted to PRD, arXiv:1706.08310.

• 646. Suppression of excited $\Upsilon$ states relative to the ground state in PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, PRL 120 (2018) 142301, arXiv:1706.05984.


• 635. Combination of searches for heavy resonances decaying to WW, WZ, ZZ, WH, and ZH boson pairs in proton-proton collisions at $\sqrt{s} = 8$ and 13 TeV, PLB 774 (2017) 533, arXiv:1705.09171.


• 633. Search for new phenomena with the $M_{T2}$ variable in the all-hadronic final state produced in proton-proton collisions at $\sqrt{s} = 13$ TeV, EPJC 77 (2017) 710, arXiv:1705.04650.


• 626. Measurement of the top quark mass in the dileptonic $t\bar{t}$ decay channel using the mass observables $M_{b\ell}$, $M_{T2}$, and $M_{b\ell\nu}$ in pp collisions at $\sqrt{s} = 8$ TeV, PRD 96 (2017) 032002, arXiv:1704.06142.

• 625. Search for $t\bar{t}$ resonances in highly-boosted lepton+jets and fully hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV, JHEP 07 (2017) 001, arXiv:1704.03366.

• 624. Measurements of the pp → $W\gamma\gamma$ and pp → $Z\gamma\gamma$ cross sections and limits on anomalous quartic gauge couplings at $\sqrt{s} = 8$ TeV, JHEP 10 (2017) 072, arXiv:1704.00366.


• 622. Measurement of the jet mass in highly boosted $t\bar{t}$ events from pp collisions at $\sqrt{s} = 8$ TeV, EPJC 77 (2017) 467, arXiv:1703.06330.


• 619. Search for associated production of dark matter with a Higgs boson decaying to b̅b or $\gamma\gamma$ at $\sqrt{s} = 13$ TeV, JHEP 10 (2017) 180, arXiv:1703.05236.


• 609. Azimuthal anisotropy of charged particles with transverse momentum up to 100 GeV/$c$ in PbPb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV, PLB 776 (2017) 195, arXiv:1702.00630.


• 606. Search for single production of vector-like quarks decaying to a $Z$ boson and a top or a bottom quark in proton-proton collisions at $\sqrt{s} = 13$ TeV, JHEP 05 (2017) 029, arXiv:1701.07409.


• 604. Measurement of the $t\bar{t}$ production cross section using events with one lepton and at least one jet in pp collisions at $\sqrt{s} = 13$ TeV, JHEP 09 (2017) 051, arXiv:1701.06228.


• 596. Search for massive resonances decaying into WW, WZ or ZZ bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV, JHEP 03 (2017) 162, arXiv:1612.09159.


• 591. Search for heavy neutrinos or third-generation leptoquarks in final states with two hadronically decaying $\tau$ leptons and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV, JHEP 03 (2017) 077, arXiv:1612.01190.

• 590. Search for single production of a heavy vector-like T quark decaying to a Higgs boson and a top quark with a lepton and jets in the final state, PLB 771 (2017) 80, arXiv:1612.00999.

• 589. Search for CP violation in $t\bar{t}$ production and decay in proton-proton collisions at $\sqrt{s} = 8$ TeV, JHEP 03 (2017) 101, arXiv:1611.08931.


• 585. Measurement of the $t\bar{t}$ production cross section using events in the $e\mu$ final state in pp collisions at $\sqrt{s} = 13$ TeV, EPJC 77 (2017) 172, arXiv:1611.04040.


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• 580. Suppression of $\Upsilon(1S)$, $\Upsilon(2S)$, and $\Upsilon(3S)$ quarkonium states in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV, PLB 770 (2017) 357, arXiv:1611.01510.

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• 576. Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos, and b quarks, PLB 768 (2017) 137, arXiv:1610.08066.
• 575. Observation of Υ(1S) pair production in proton-proton collisions at √s = 8 TeV, JHEP 05 (2017) 013, arXiv:1610.07095.


• 568. Search for high-mass Z\gamma resonances in e+e−γ and µ+µ−γ final states in proton-proton collisions at √s = 8 and 13 TeV, JHEP 01 (2017) 076, arXiv:1610.02960.


• 560. Search for narrow resonances in dilepton mass spectra in proton-proton collisions at \( \sqrt{s} = 13 \) TeV and combination with 8 TeV data, PLB 768 (2017) 57, arXiv:1609.05391.


• 545. Search for lepton flavour violating decays of the Higgs boson to $e\tau$ and $e\mu$ in proton-proton collisions at $\sqrt{s} = 8$ TeV, PLB 763C (2016) 472, arXiv:1607.03561.


• 532. Search for top squark pair production in compressed-mass-spectrum scenarios in proton-proton collisions at $\sqrt{s} = 8$ TeV using the $\alpha_T$ variable, PLB 767 (2017) 403, arXiv:1605.08993.


• 525. Search for Higgs boson off-shell production in proton-proton collisions at 7 and 8 TeV and derivation of constraints on its total decay width, JHEP 09 (2016) 051, arXiv:1605.02329.

• 523. Measurement of the integrated and differential $t\bar{t}$ production cross sections for high-$p_T$ top quarks in pp collisions at $\sqrt{s} = 8$ TeV,

• 522. Pseudorapidity dependence of long-range two-particle correlations in pPb collisions at $\sqrt{b_{NN}} = 5.02$ TeV,

• 521. Search for lepton flavour violating decays of heavy resonances and quantum black holes to an $e\mu$ pair in proton-proton collisions at $\sqrt{s} = 8$ TeV,

• 520. Evidence for exclusive $\gamma\gamma \rightarrow W^+W^-$ production and constraints on anomalous quartic gauge couplings in pp collisions at $\sqrt{s} = 7$ and 8 TeV,

• 519. Search for dark matter particles in proton-proton collisions at $\sqrt{s} = 8$ TeV using the razor variables,

• 518. Search for two Higgs bosons in final states containing two photons and two bottom quarks,

• 517. Measurement of the top quark mass using charged particles in pp collisions at $\sqrt{s} = 8$ TeV,

• 516. Measurements of $t\bar{t}$ charge asymmetry using dilepton final states in pp collisions at $\sqrt{s} = 8$ TeV,

• 515. Search for new physics with the $M_{T2}$ variable in all-jets final states produced in pp collisions at $\sqrt{s} = 13$ TeV,

• 514. Search for neutral resonances decaying into a $Z$ boson and a pair of $b$ jets or $\tau$ leptons,

• 513. $\Upsilon(nS)$ polarizations versus particle multiplicity in pp collisions at $\sqrt{s} = 7$ TeV,

• 512. Search for $s$ channel single top quark production in pp collisions at $\sqrt{s} = 7$ and 8 TeV,

• 511. Search for heavy Majorana neutrinos in $e^\pm e^\pm$ $+\text{ jets}$ and $e^\pm \mu^\pm +\text{ jets}$ events in proton-proton collisions at $\sqrt{s} = 8$ TeV,
• 510. Measurement of the $t\bar{t}$ production cross section in the $e\mu$ channel in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV, JHEP 08 (2016) 029, arXiv:1603.02303.


• 507. Measurements of the $t\bar{t}$ production cross section in lepton+jets final states in pp collisions at 8 TeV and ratio of 8 to 7 TeV cross sections, EPJC 77 (2017) 15, arXiv:1602.09024.


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• 493. Measurements of \( t\bar{t} \) spin correlations and top quark polarization using dilepton final states in pp collisions at \( \sqrt{s} = 8 \) TeV , PRD 93 (2016) 052007, arXiv:1601.01107.


• 491. Measurement of differential and integrated fiducial cross sections for Higgs boson production in the four-lepton decay channel in pp collisions at \( \sqrt{s} = 7 \) and 8 TeV , JHEP 04 (2016) 005, arXiv:1512.08377.

• 490. Search for supersymmetry in events with soft leptons, low jet multiplicity, and missing transverse energy in proton-proton collisions at \( \sqrt{s} = 8 \) TeV , PLB 759 (2016) 9, arXiv:1512.08002.


• 476. Search for a light charged Higgs boson decaying to $c\bar{s}$ in pp collisions at $\sqrt{s} = 8$ TeV, JHEP 12 (2015) 1, arXiv:1510.04252.

• 475. Transverse momentum spectra of $b$ jets in pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, PLB 754 (2016) 59, arXiv:1510.03373.


• 473. Measurement of $t\bar{t}$ production with additional jet activity, including $b$ quark jets, in the dilepton decay channel using pp collisions at $\sqrt{s} = 8$ TeV, EPJC 76 (2016) 379, arXiv:1510.03072.

• 472. Searches for a heavy scalar boson $H$ decaying to a pair of 125 GeV Higgs bosons $hh$ or for a heavy pseudoscalar boson $A$ decaying to Z$\gamma$, in the final states with $h \rightarrow \tau\tau$, PLB 755 (2016) 217, arXiv:1510.01181.


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• 457. Study of B meson production in pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV using exclusive hadronic decays,

• 456. Search for W' decaying to tau lepton and neutrino in proton-proton collisions at $\sqrt{s} = 8$ TeV,

• 455. Measurement of the charge asymmetry in top quark pair production in pp collisions at $\sqrt{s} = 8$ TeV using a template method,

• 454. Search for neutral MSSM Higgs bosons decaying to $\mu^+\mu^-$ in pp collisions at $\sqrt{s} = 7$ and 8 TeV,

• 453. Search for supersymmetry in events with a photon, a lepton, and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV,

• 452. Angular analysis of the decay $B^0 \rightarrow K^{*0}\mu^+\mu^-$ from pp collisions at $\sqrt{s} = 8$ TeV,

• 451. Measurement of the CP-violating weak phase $\phi_s$ and the decay width difference $\Delta\Gamma_s$ using the $B_s^0 \rightarrow J/\psi\phi(1020)$ decay channel in pp collisions at $\sqrt{s} = 8$ TeV,

• 450. Measurement of the underlying event activity using charged-particle jets in proton-proton collisions at $\sqrt{s} = 2.76$ TeV,

• 449. Search for pair-produced vectorlike B quarks in proton-proton collisions at $\sqrt{s} = 8$ TeV,

• 448. Limits on the Higgs boson lifetime and width from its decay to four charged leptons,

• 447. Pseudorapidity distribution of charged hadrons in proton-proton collisions at $\sqrt{s} = 13$ TeV,

• 446. Measurement of the WW cross section in pp collisions at $\sqrt{s} = 8$ TeV and limits on anomalous gauge couplings,

• 445. Inclusive and differential measurements of the t\bar{t} charge asymmetry in pp collisions at $\sqrt{s} = 8$ TeV,
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• 443. Search for supersymmetry with photons in pp collisions at $\sqrt{s} = 8$ TeV,

• 442. Search for exotic decays of a Higgs boson into undetectable particles and photons,

• 441. Production of leading charged particles and leading charged-particle jets at small transverse momenta in pp collisions at $\sqrt{s} = 8$ TeV,

• 440. Search for neutral MSSM Higgs bosons decaying into a pair of bottom quarks,

• 439. Search for resonant $t\bar{t}$ production in proton-proton collisions at $\sqrt{s} = 8$ TeV,

• 438. Search for diphoton resonances in the mass range from 150 to 850 GeV in pp collisions at $\sqrt{s} = 8$ TeV,

• 437. Search for a massive resonance decaying into a Higgs boson and a W or Z boson in hadronic final states in proton-proton collisions at $\sqrt{s} = 8$ TeV,

• 436. Search for the standard model Higgs boson produced through vector boson fusion and decaying to $b\bar{b}$,

• 435. A search for pair production of new light bosons decaying into muons,

• 434. Search for neutral color-octet weak-triplet scalar particles in proton-proton collisions at $\sqrt{s} = 8$ TeV,

• 433. Comparison of the $Z/\gamma^*+\text{jets}$ to $\gamma+\text{jets}$ cross sections in pp collisions at $\sqrt{s} = 8$ TeV,

• 432. Measurement of the differential cross section for top quark pair production in pp collisions at $\sqrt{s} = 8$ TeV,
• 431. Search for a pseudoscalar boson decaying into a Z boson and the 125 GeV Higgs boson in $\ell^+\ell^-b\bar{b}$ final states, PLB 748 (2015) 221, arXiv:1504.04710.


• 427. Search for a Higgs boson in the mass range from 145 to 1000 GeV decaying to a pair of W or Z bosons, JHEP 10 (2015) 144, arXiv:1504.00936.


• 421. Measurements of the ZZ production cross sections in the $2\ell2\nu$ channel in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV and combined constraints on triple gauge couplings, EPJC 75 (2015) 511, arXiv:1503.05467.


• 402. Measurements of the $\Upsilon(1S)$, $\Upsilon(2S)$, and $\Upsilon(3S)$ differential cross sections in pp collisions at $\sqrt{s} = 7$ TeV, PLB 749 (2015) 14, arXiv:1501.07750.

• 401. Measurement of the ratio $\mathcal{B}(B_s^0 \to J/\psi f_0(980))/\mathcal{B}(B_s^0 \to J/\psi \phi(1020))$ in pp collisions at $\sqrt{s} = 7$ TeV, PLB 756 (2016) 84, arXiv:1501.06089.


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