# List of Publications/Conferences

## • CMS Public Documents

1. CMS Collaboration, "Determination of the strong coupling constant from the measurement of inclusive multijet event cross sections in pp collisions at  $\sqrt{s}$  = 8 TeV", CMS-PAS-SMP-16-008 (2017).

## • CMS Internal Documents

#### Analysis Notes

- 1. A. Kaur et al., "Search for light scalar resonances decaying to b quarks at  $\sqrt{s}=13$  TeV", CMS AN-2016/384 (2016).
- 2. A. Kaur *et al.*, "Measurement of inclusive multijet cross-sections in pp collisions at  $\sqrt{s}=8$  TeV", **CMS AN-2015/102** (2015).

#### Detector Note

 A. Kaur et al., "Commissioning and performance of the CMS Hadron Outer Calorimeter", CMS DN-14-019 (2014).

## • Papers in Refreed Journals

1. A. Kaur *et al.*, "Measurements of event properties and multi-differential jet cross sections and impact of CMS measurements on Proton Struc-

- ture and QCD parameters", EPJ Web of Conferences 172 (2018) doi:10.1051/epjconf/201817202001.
- A. Kaur et al., "Extraction of the strong coupling constant from the measurement of inclusive multijet event cross-sections in pp collisions at center of mass energy of 8 TeV", Springer Proc. Phys. 203, 02001 (2018) doi:10.1007/978-3-319-73171-1.
- M. Kaur and Anter P. Kaur, "Subjet Multiplicities at LHC Energies and the QCD Color Factor Ratio C<sub>A</sub>/C<sub>F</sub>", Advances in High Energy Physics 2013, Article ID 585809 (2013) doi:10.1155/2013/585809.

## Papers presented in Conferences, Workshops and Symposiums

- A. Kaur et al., "Measurements of event properties and multi-differential jet cross sections and impact of CMS measurements on Proton Structure and QCD parameters", XLVII International Symposium on Multiparticle Dynamics (ISMD2017), 11-15 September, 2017, Tlaxcala City, Mexico.
- A. Kaur et al., "Measurement of inclusive multijet cross sections in pp collisions using the CMS detector", 11<sup>th</sup> Chandigarh Science Congress, CHAS-CON 2017, 9-11 March, 2017, Panjab University, Chandigarh, India.
- 3. A. Kaur et al., "Extraction of the strong coupling constant from the measurement of inclusive multijet event cross-sections in pp collisions at center of mass energy of 8 TeV", XXII DAE-BRNS High Energy Physics Symposium 2016, 12-16 December, 2016, Delhi, India.
- A. Kaur et al., "Inclusive jets results from CMS", International Workshop on Frontiers in Electroweak Interactions of Leptons and Hadrons, 2-6 November, 2016, Aligarh, India.
- A. Kaur et al., "HCAL Back-end Upgradation at CMS Detector", 9<sup>th</sup> Chandigarh Science Congress, CHASCON 2015, 25-27 February, 2015, Panjab

University, Chandigarh, India.

## • Conferences, Schools and Workshops attended

- Workshop on Upgrade of the CMS Calorimeter, 23-24 November, 2015,
  Tata Institute of Fundamental Research, Mumbai, India.
- IX SERC SCHOOL ON EXPERIMENTAL HIGH ENERGY PHYSICS, 2-21 December, 2013, Indian Institute of Technology Madras, Chennai, India.
- 3. CMS Data Analysis School (CMSDAS), 7-11 November, 2013, Saha Institute of Nuclear Physics, Kolkata, India.
- 5<sup>th</sup> Chandigarh Science Congress, CHASCON 2011, 26-28 February, 2011, Panjab University, Chandigarh, India.

## • CMS Publications<sup>24</sup>

- 1. CMS Collaboration, "Observation of electroweak production of same-sign W boson pairs in the two jet and two same-sign lepton final state in proton-proton collisions at  $\sqrt{s} = 13$  TeV", Phys. Rev. Lett. **120**, no. 8, 081801 (2018).
- 2. CMS Collaboration, "Measurement of vector boson scattering and constraints on anomalous quartic couplings from events with four leptons and two jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV", Phys. Lett. B **774**, 682 (2017).
- 3. CMS Collaboration, "Measurement of the differential cross sections for the associated production of a W boson and jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV", Phys. Rev. D **96**, no. 7, 072005 (2017).
- 4. CMS Collaboration, "Measurements of jet charge with dijet events in pp collisions at  $\sqrt{s}=8$  TeV", JHEP **1710**, 131 (2017).

<sup>&</sup>lt;sup>24</sup>I am a co-author of more than 300 Journal Articles with the CMS Collaboration and the full list of publications can be found at http://inspirehep.net/search?ln=en&as=1&m1=e&p1=Anterpreet+Kaur&f1=author&op1=a&m2=p&p2=&f2=collaboration&op2=a&m3=a&p3=&f3=&action\_search=Search&sf=&so=d&rm=&rg=25&sc=0&of=hb

- 5. CMS Collaboration, "Measurement of the triple-differential dijet cross section in proton-proton collisions at  $\sqrt{s} = 8 \text{ TeV}$  and constraints on parton distribution functions", Eur. Phys. J. C 77, no. 11, 746 (2017).
- 6. CMS Collaboration, "Measurements of the pp  $\to W\gamma\gamma$  and pp  $\to Z\gamma\gamma$  cross sections and limits on anomalous quartic gauge couplings at  $\sqrt{s}=8$  TeV", JHEP **1710**, 072 (2017).
- 7. CMS Collaboration, "Search for anomalous couplings in boosted WW/WZ  $\rightarrow \ell\nu q\bar{q}$  production in proton-proton collisions at  $\sqrt{s}=8$  TeV", Phys. Lett. B 772, 21 (2017).
- 8. CMS Collaboration, "Measurement of the cross section for electroweak production of  $Z\gamma$  in association with two jets and constraints on anomalous quartic gauge couplings in proton-proton collisions at  $\sqrt{s} = 8$  TeV", Phys. Lett. B **770**, 380 (2017).
- 9. CMS Collaboration, "Measurement of electroweak-induced production of W $\gamma$  with two jets in pp collisions at  $\sqrt{s} = 8$  TeV and constraints on anomalous quartic gauge couplings", JHEP **1706**, 106 (2017).
- 10. CMS Collaboration, "Measurements of the associated production of a Z boson and b jets in pp collisions at  $\sqrt{s} = 8 \,\text{TeV}$ ", Eur. Phys. J. C 77, no. 11, 751 (2017).
- 11. CMS Collaboration, "Measurements of differential production cross sections for a Z boson in association with jets in pp collisions at  $\sqrt{s} = 8$  TeV", JHEP 1704, 022 (2017).
- 12. CMS Collaboration, "Measurements of differential cross sections for associated production of a W boson and jets in proton-proton collisions at  $\sqrt{s} = 8$  TeV", Phys. Rev. D **95**, 052002 (2017).
- 13. CMS Collaboration, "Measurement of the WZ production cross section in pp collisions at  $\sqrt{s} = 7$  and 8 TeV and search for anomalous triple gauge couplings at  $\sqrt{s} = 8$  TeV", Eur. Phys. J. C 77, no. 4, 236 (2017).

- 14. CMS Collaboration, "Measurement and QCD analysis of double-differential inclusive jet cross sections in pp collisions at  $\sqrt{s} = 8$  TeV and cross section ratios to 2.76 and 7 TeV", JHEP **1703**, 156 (2017).
- 15. CMS Collaboration, "Measurement of the production cross section of a W boson in association with two b jets in pp collisions at  $\sqrt{s} = 8 \text{ TeV}$ ", Eur. Phys. J. C 77, no. 2, 92 (2017).
- 16. CMS Collaboration, "Measurement of the ZZ production cross section and Z  $\rightarrow \ell^+ \ell^- \ell'^+ \ell'^-$  branching fraction in pp collisions at  $\sqrt{s}$ =13 TeV", Phys. Lett. B **763**, 280 (2016), Erratum: [Phys. Lett. B **772**, 884 (2017)].
- 17. CMS Collaboration, "Measurement of the WZ production cross section in pp collisions at  $\sqrt(s) = 13$  TeV", Phys. Lett. B **766**, 268 (2017)
- 18. CMS Collaboration, "Measurement of electroweak production of a W boson and two forward jets in proton-proton collisions at  $\sqrt{s} = 8$  TeV", JHEP **1611**, 147 (2016).
- 19. CMS Collaboration, "Measurement of the transverse momentum spectra of weak vector bosons produced in proton-proton collisions at  $\sqrt{s} = 8$  TeV", JHEP **1702**, 096 (2017)
- 20. CMS Collaboration, "Measurement of the double-differential inclusive jet cross section in proton–proton collisions at  $\sqrt{s} = 13 \,\text{TeV}$ ", Eur. Phys. J. C **76**, no. 8, 451 (2016).
- 21. CMS Collaboration, "Measurement of the differential cross section and charge asymmetry for inclusive pp  $\rightarrow$  W<sup>±</sup> + X production at  $\sqrt{s} = 8$  TeV", Eur. Phys. J. C **76**, no. 8, 469 (2016).
- 22. CMS Collaboration, "Measurement of the  $Z\gamma \to \nu\bar{\nu}\gamma$  production cross section in pp collisions at  $\sqrt{s}=8$  TeV and limits on anomalous  $ZZ\gamma$  and  $Z\gamma\gamma$  trilinear gauge boson couplings", Phys. Lett. B **760**, 448 (2016).
- 23. CMS Collaboration, "Measurement of dijet azimuthal decorrelation in pp col-

- lisions at  $\sqrt{s}=8\,\mathrm{TeV}$ ", Eur. Phys. J. C **76**, no. 10, 536 (2016).
- 24. CMS Collaboration, "Forward–backward asymmetry of Drell–Yan lepton pairs in pp collisions at  $\sqrt{s}=8$  TeV", Eur. Phys. J. C **76**, no. 6, 325 (2016).
- 25. CMS Collaboration, "Measurement of the inclusive jet cross section in pp collisions at  $\sqrt{s}=2.76\,\mathrm{TeV}$ ", Eur. Phys. J. C **76**, no. 5, 265 (2016).
- 26. CMS Collaboration, "Measurement of the W<sup>+</sup>W<sup>-</sup> cross section in pp collisions at  $\sqrt{s} = 8$  TeV and limits on anomalous gauge couplings", Eur. Phys. J. C **76**, no. 7, 401 (2016).
- 27. CMS Collaboration, "Comparison of the  $Z/\gamma^*$  + jets to  $\gamma$  + jets cross sections in pp collisions at  $\sqrt{s}=8$  TeV", JHEP **1510**, 128 (2015), Erratum: [JHEP **1604**, 010 (2016)].
- 28. CMS Collaboration, "Search for a pseudoscalar boson decaying into a Z boson and the 125 GeV Higgs boson in  $\ell^+\ell^-b\bar{b}$  final states", Phys. Lett. B **748**, 221 (2015).
- 29. CMS Collaboration, "Search for a Higgs boson in the mass range from 145 to 1000 GeV decaying to a pair of W or Z bosons", JHEP **1510**, 144 (2015).
- 30. CMS Collaboration, "Search for Third-Generation Scalar Leptoquarks in the  $t\tau$  Channel in Proton-Proton Collisions at  $\sqrt{s}=8$  TeV", JHEP **1507**, 042 (2015), Erratum: [JHEP **1611**, 056 (2016)].