

Curriculum Vitae

Junjie Zhu

Education and Appointments

University of Michigan	Associate professor	09/2016 – present
University of Michigan	Assistant professor	05/2010 – 08/2016
SUNY Stony Brook	Research associate	11/2004 – 04/2010
University of Maryland – College Park	PhD	09/2000 – 10/2004
University of Science and Technology of China	BS	09/1995 – 07/2000

Professional Activities and Service

2016 – present	ALTAS coordinator, Phase-II MDT frontend electronics upgrade
2016 – present	U.S. ATLAS Level-3 manager, Phase-II MDT TDC upgrade
2013 – present	U.S. ATLAS Level-3 manager, Phase-I sTGC electronics upgrade
2016 – present	Member, ATLAS Phase-II MDT upgrade electronics recommittee
2016 – present	Member, ATLAS muon speaker committee
2015 – 2016	Leader, vector boson scattering resonance search group at ATLAS
2012–2014	Co-leader, diboson and multilepton (DBL) search group at ATLAS
2011–2012	Co-leader, diboson resonance (DBX) search group at ATLAS
2011–2013	Member, U.S. ATLAS speaker committee
2008–2010	Co-leader, electroweak physics group at DØ
2008–2009	Leader, W and Z boson properties group at DØ
2005–2010	Leader, Silicon Track Trigger (STT) upgrade and operation group at DØ
2003–2010	Member, Tevatron Electroweak Working Group
2005–2006	Member, Tracker Calibration Task Force at DØ
2003–2004	Member, Calorimeter Calibration Task Force at DØ
2004–2007	MC representative, electroweak physics group at DØ

Honors and Awards

1. US ATLAS fellow, 03/2013 – 02/2014
2. DOE Early Career Award, 05/2012
3. US ATLAS fellow, 09/2011 – 08/2012
4. Kavli Frontiers of Science Fellow, US National Academy of Sciences and Chinese National Academy of Sciences, 11/2011
5. Alvin Tollestrup award for outstanding postdoctoral researcher at Fermilab, Universities Research Association, 06/2009
6. Martin and Beate Block Award, Aspen Center for Physics, 01/2008
7. Undergraduate Student Excellence Award, USTC, 06/2000
8. Liu Yong-Lin prize, USTC, 09/1999
9. Excellent Student Scholarship, USTC, 09/1998
10. Japanese Enterprise Communication Prize, USTC, 09/1997

Conferences and Workshops Organized

1. Multiboson interaction workshop, University of Wisconsin, August 2016
2. MDT electronics upgrade for Phase-2, University of Michigan, May 2016
3. Multiboson interaction workshop, DESY, October 2015
4. Multiboson interaction workshop, BNL, October 2014
5. US ATLAS physics workshop, University of Michigan, August 2012
6. VBF/VBS physics analysis jamboree, BNL, July 2013

7. VBF/VBS physics analysis jamboree, BNL, December 2012
8. ATLAS Diboson resonance search jamboree, BNL, February 2012
9. ATLAS Diboson physics jamboree, BNL, September 2011

Selected Publications:

1. Measurement of WW vector boson scattering and limits on anomalous quartic gauge couplings with the ATLAS detector, submitted to Phys. Rev. D, arXiv:1611.02428.
2. Search for triboson WWW production in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector, accepted by Eur. Phys. J. C, arXiv:1610.05088
3. Combination of searches for WW, WZ, and ZZ resonances in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector, *Phys. Lett. B* 755 (2016)
4. Search for new phenomena in dijet mass and angular distributions from pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector, *Phys. Lett. B* 754 (2016) 302
5. Determination of the WW polarization fractions in $pp \rightarrow W^+W^+jj$ using a deep machine learning technique, J. Searcy, L. Huang, M-A Pleier, and J. Zhu, *Phys. Rev. D* 93, 094033 (2016)
6. Electroweak results from the ATLAS and CMS experiments, J. Zhu, *Proceeding for the APS Division of Particles and Fields meeting*, arXiv:1509.08173
7. FPGA implementation of a fixed latency scheme in a signal packet router for the upgrade of the ATLAS forward muon trigger electronics, J. Wang, X. Hu, T. Schwarz, J. Zhu, J.W. Chapman, T. Dai, B. Zhou, *IEEE Transactions on Nuclear Science* 62 5 (2015)
8. Characterization of a serializer ASIC for the upgrade of the ATLAS muon detector, J. Wang, L. Guan, Z. Sang, J.W. Chapman, T. Dai, B. Zhou, J. Zhu, *IEEE Transactions on Nuclear Science* 99 1 (2015)
9. Search for a heavy neutral particle decaying to $e\mu$, $e\tau$, or $\mu\tau$ in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector, *Phys. Rev. Lett.* 115, 031801 (2015)
10. Diboson Production in Proton-Proton Collisions at $\sqrt{s}=7$ TeV (review article), M. Schott and J. Zhu, *International Journal of Modern Physics A* 29, 1430053 (2014)
11. Search for WZ resonances in the fully leptonic channel using pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector, *Phys. Lett. B* 737 (2014) 223
12. Evidence for Electroweak Production of W^+W^+jj in pp Collisions at $\sqrt{s}=8$ TeV with the ATLAS Detector, *Phys. Rev. Lett.* 113, 141803 (2014) (PRL Editor's Suggestion)
13. Search for $ZH \rightarrow llbb$ production in 9.7 fb^{-1} of ppbar collisions with the D0 detector, *Phys. Rev. D* 88, 052010 (2013)
14. Search for a heavy narrow resonance decaying to $e\mu$, $e\tau$ and $\mu\tau$ with the ATLAS detector in $\sqrt{s}=7$ TeV at the LHC, *Phys. Lett. B* 723 (2013)
15. Studies on fast triggering and high precision tracking with Resistive Plate Chambers, *Nucl. Instru. and Meth.* 714, 115 (2013)
16. Measurement of WW production in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector, *Phys. Rev. D* 87, 112001 (2013)
17. Search for new phenomena in the WW to $l\nu l'\nu'$ final state in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector, *Phys. Lett. B* 718, 860 (2013)
18. Combined search for the standard model Higgs boson decaying to bb using the DØ Run II data, *Phys. Rev. Lett.* 109, 121802 (2012)
19. Search for $ZH \rightarrow llbb$ production in 9.7 fb^{-1} of ppbar collisions with the DØ detector, *Phys. Rev. D* 88, 052010 (2013)
20. Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC, *Phys. Lett. B* 716, 1 (2012)
21. Evidence for a particle produced in association with weak bosons and decaying to a bottom-antibottom quark pair in Higgs boson searches at the Tevatron, *Phys. Rev. Lett.*

- 109, 071804 (2012)
22. Search for the standard model Higgs boson in $ZH \rightarrow ll\bar{b}b$ production with the DØ detector in 9.7 pb^{-1} of $p\bar{p}$ collisions at $\sqrt{s}=1.96 \text{ TeV}$, *Phys. Rev. Lett.* 109, 121803 (2012)
 23. Search for lepton flavour violation in the $e\mu$ continuum with the ATLAS detector in $\sqrt{s}=7 \text{ TeV}$ pp collisions at the LHC, *Eur. Phys. Jour. C Letter* 72, 2040 (2012)
 24. Search for resonant WZ production in the WZ to $lvll$ channel in $\sqrt{s}=7 \text{ TeV}$ pp collisions with the ATLAS detector, *Phys. Rev. D* 85, 112012 (2012)
 25. Search for $Z\gamma$ events with large missing transverse energy in $p\bar{p}$ collisions at $\sqrt{s}=1.96 \text{ TeV}$, *Phys. Rev. D* 86, 071701 (R) (2012)
 26. Search for a heavy neutral particle decaying into an electron and a muon using 1 fb^{-1} of ATLAS data, *Eur. Phys. Jour. C Letter* 72, 1809 (2011)
 27. Measurement of the transverse momentum of Z/γ^* bosons in proton-proton collisions at $\sqrt{s}=7 \text{ TeV}$ with the ATLAS detector, *Phys. Lett. B* 705, 415 (2011)
 28. Measurement of $\sin^2\theta_{\text{eff}}$ and Z-light quark couplings using the forward-backward charge asymmetry in $p\bar{p} \rightarrow Z/\gamma^* \rightarrow ee$ events with $L=5.0 \text{ fb}^{-1}$ at $\sqrt{s}=1.96 \text{ TeV}$, *Phys. Rev. D* 84, 012007 (2011)
 29. Search for a heavy particle decaying into an electron and a muon with the ATLAS detector in $\sqrt{s}=7 \text{ TeV}$ pp collisions at the LHC, *Phys. Rev. Lett* 106, 251801 (2011)
 30. The RPC based proposal for the ATLAS forward muon trigger upgrade in view of super-LHC, *Proceeding of Science* (2012) 062
 31. Electroweak and QCD results from the Tevatron, Fermilab-CONF-11-416-PPD, *arXiv:1109.0550*
 32. Measurement of direct photon pair production cross sections in $p\bar{p}$ collisions at $\sqrt{s}=1.96 \text{ TeV}$, *Phys. Lett. B* 690, 108 (2010)
 33. Measurement of the W boson width, *Phys. Rev. Lett* 103, 231802 (2009)
 34. Measurement of the W boson mass, *Phys. Rev. Lett.* 103, 141801 (2009)
 35. A novel method for modeling the recoil in W boson events at hadron colliders, *Nucl. Instrum. and Meth. A* 609, 250 (2009)
 36. Search for resonant diphoton production with the DØ detector, *Phys. Rev. Lett.* 102, 231801 (2009)
 37. Measurement of W boson charge asymmetry in electron channel, *Phys. Rev. Lett.* 101, 211801 (2008)
 38. Measurement of the forward-backward asymmetry and extraction of $\sin^2\theta_W$ in $Z/\gamma^* \rightarrow ee$ events produced at $\sqrt{s}=1.96 \text{ TeV}$, *Phys. Rev. Lett.* 101, 191801 (2008)
 39. Measurement of the shape of the boson transverse momentum distribution in $Z/\gamma^* \rightarrow ee$ events produced at $\sqrt{s}=1.96 \text{ TeV}$, *Phys. Rev. Lett.* 100, 102002 (2008)