

## Curriculum Vitae

*Name & Title:* C.-P. Yuan, Professor of Physics

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### Education:

1980 B. S. National Taiwan Normal University, Taipei, Taiwan, R.O.C.  
1988 Ph. D. University of Michigan, Ann Arbor, Michigan, U.S.A.

### Professional Experience:

Research Associate	Argonne National Laboratory	1988 - 1990
Research Associate	The Johns Hopkins University	1990 - 1992
Research Associate	University of California at Santa Cruz	Mar - Aug 1991
Assistant Professor	Michigan State University	1992 - 1998
CTEQ <sup>†</sup> member	CTEQ Collaboration	1992 - present
Associate Professor	Michigan State University	1998 - 2004
Full Professor	Michigan State University	2004 - present
Secretary	Overseas Chinese Physics Association (OCPA*)	2005 - 2006
Vice-President	Overseas Chinese Physics Association (OCPA)	2007 - 2008
President	Overseas Chinese Physics Association (OCPA)	2009 - 2010
Visiting Professor	National Tsing Hua University, Taiwan	2010
Visiting Professor	Peking University, Beijing, China	2011
APS Fellow	American Physical Society	from 2013
Honorary Professor	Xinjiang University, Urumqi, China	2015 - present
Tung Professor	Michigan State University	2017 - present

### Fellowships and Awards:

1990 and 1991 Superconducting Super Collider  
Postdoctoral Fellowship Award,  
Texas National Research Laboratory Commission, U.S.A.

Ph.D. students

Doug Carlson, August 1995. (Researcher, Harris Corporation)

Ehab Malkawi, August 1996. (Associate Professor, United Arab Emirates University, United Arab Emirates)

Tim Tait, August 1999. (Professor, University of California, Irvine, USA)

Csaba Balazs, August 1999. (Professor, Monash University at Melbourne, Australia)

Pavel Nadolsky, August 2001. (Associate Professor, Southern Methodist University, Dallas, Texas, USA)

Qing-Hong Cao, August 2005. (Professor, Peking University, Beijing, China)

Chuan-Ren Chen, March 2008. (Professor, National Taiwan Normal University, Taiwan, ROC)

Jiang-Hao Yu, August 2012. (Assistant Professor, Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing, China)

Josh Isaacson, October 2017. (Postdoc, Fermilab Theory group)

M.S. students

Kai Schmitz, August 2009. (Postdoc, Max Planck Institute for Nuclear Physics, Heidelberg, Germany)

† The CTEQ (Coordinated Theoretical-Experimental Project of QCD) collaboration website is

<http://www.phys.psu.edu/cteq/>

\* The OCPA website is

<http://www.ocpaweb.org/new/>

## *Summary of Publications: Google Scholar*

Google Scholar website works, which provides the "user profiles for CP Yuan, Michigan State University".

<http://scholar.google.com/citations?user=CtDh12YAAAAJ&hl=en>

Current Summary (as of September 2020):

Citation indices	All	Since 2015
Citations	31,919	14,449
h-index	77	41
i10-index	179	105

## *List of Principle Publications*

1. *Modification of the equivalence theorem due to loop corrections*, Phys. Rev. **D38** (1988) 2237, (with Y.-P. Yao).
2. *A New Method to Detect a Heavy Top Quark at the Fermilab Tevatron*, Phys. Rev. **D41** (1990) 42.
3. *Using the Top Quark for Testing Standard Model Polarization and CP Predictions*, Phys. Rev. **D45** (1992) 124, (with G. L. Kane and G. A. Ladinsky).
4. *LHC Analysis of the Strongly Interacting WW System: Gold-Plated Modes*, hep-ph/9504426, Phys. Rev. **D52** (1995) 3878, (with J. Bagger, V. Barger, K. Cheung, J. Gunion, T. Han, G.A. Ladinsky, and R. Rosenfeld).
5. *Soft Gluon Effects on Lepton Pairs at Hadron Colliders*, hep-ph/9704258, Phys. Rev. **D56** (1997) 5558, (with C. Balazs).
6. *Single Top Production as a Window to Physics Beyond the Standard Model*, hep-ph/0007298, Phys. Rev. **D63** (2000) 014018, (with T. Tait).
7. *Associated Production of CP Odd and Charged Higgs Bosons at Hadron Colliders*, e-Print Archive: hep-ph/0311083, Phys. Rev. **D69** (2004) 075008, (with Qing-Hong Cao and Shinya Kanemura).
8. *Combined Effect of QCD Resummation and QED Radiative Correction to W Boson Observables at the Tevatron*, e-Print Archive: hep-ph/0401026, Phys. Rev. Lett. **93** (2004) 042001, (with Qing-Hong Cao).

9. *Next-To-Leading Order Corrections to Single Top Quark Production and Decay at Tevatron. 2. t-Channel Process*, e-Print Archive: hep-ph/0504230, Phys. Rev. **D72** (2005) 094027, (with Qing-Hong Cao, Reinhard Schwienhorst, Raymond Brock and Jorge Benitez).
10. *Light MSSM Higgs Boson Scenario and its Test at Hadron Colliders*, e-Print Archive: hep-ph/0609079, Phys. Rev. Lett. **100** (2008) 061801, (with Alexander Belyaev, Qing-Hong Cao, Daisuke Nomura, and Kazuhiro Tobe).  
(It was also reported at *Science Magazine* website  
<http://sciencenow.sciencemag.org/cgi/content/full/2008/123/3>)
11. *Implications of CTEQ Global Analysis for Collider Observables*, e-Print: arXiv:0802.0007 [hep-ph], Phys. Rev. **D78** (2008) 013004, (with Pavel M. Nadolsky, Hung-Liang Lai, Qing-Hong Cao, Joey Huston, Jon Pumplin, Daniel Stump, and Wu-Ki Tung).
12. *New parton distributions for collider physics*, e-Print: arXiv:1007.2241 [hep-ph], Phys. Rev. **D 82** (2010) 074024, (with Hung-Liang Lai, Marco Guzzi, Joey Huston, Zhao Li, Pavel M. Nadolsky, and Jon Pumplin).
13. *Next-to-leading QCD effect to the quark compositeness search at the LHC*, e-Print: arXiv:1101.4611 [hep-ph], Phys. Rev. Lett. **106** (2011) 142001, (with Jun Gao, Chong Sheng Li, Jian Wang, and Hua Xing Zhu).
14. *QCD resummation for jet substructures*, e-Print: arXiv:1107.4535 [hep-ph], Phys. Rev. Lett. **107** (2011) 152001, (with Hsiang-nan Li and Zhao Li).
15. *Improved Resummation Prediction on Higgs Production at Hadron Colliders*. e-Print: arXiv:1205.4311 [hep-ph], Phys. Rev. **D 86** (2012) 094026, (with Jian Wang, Chong Sheng Li, Hai Tao Li. and Zhao Li).
16. *The CT10 NNLO Global Analysis of QCD*, e-Print: arXiv:1302.6246 [hep-ph], Phys. Rev. **D89** (2014) 033009, (with Jun Gao, Marco Guzzi, Joey Huston, Hung-Liang Lai, Zhao Li, Pavel Nadolsky, Jon Pumplin, and Daniel Stump).
17. *Soft Gluon Resummations in Dijet Azimuthal Angular Correlations in Hadronic Collisions*, e-Print: arXiv: 1405.1105 [hep-ph], Phys. Rev. Lett. **113** (2014) 23, 232001, (with Peng Sun and Feng Yuan).
18. *CT14QED parton distribution functions from isolated photon production in deep inelastic scattering*, Phys. Rev. D **93**, no. 11, 114015 (2016) [arXiv:1509.02905 [hep-ph]], (with C. Schmidt, J. Pumplin, and D. Stump).

19. *New parton distribution functions from a global analysis of quantum chromodynamics*, Phys. Rev. D **93**, no. 3, 033006 (2016), arXiv:1506.07443 [hep-ph], (with S. Dulat, T. J. Hou, J. Gao, M. Guzzi, J. Huston, P. Nadolsky, J. Pumplin, C. Schmidt, and D. Stump).
20. *Factorization for substructures of boosted Higgs jets*, e-Print: arXiv:1505.06368 [hep-ph], Phys. Lett. B **771** (2017) 619, (with Joshua Isaacson, Hsiang-nan Li and Zhao Li).
21. *Resummation of High Order Corrections in Higgs Boson Plus Jet Production at the LHC*, Phys. Lett. B **769**, 57 (2017), arXiv:1602.08133 [hep-ph], (with P. Sun, J. Isaacson, and F. Yuan).
22. *Parton distributions and lattice QCD calculations: a community white paper*, e-Print: arXiv:1711.07916 [hep-ph], Published in Prog. Part. Nucl. Phys. 100 (2018) 107-160, (with Huey-Wen Lin, et al.).
23. *Transverse Momentum Resummation for t-channel single top quark production at the LHC*, e-Print: arXiv:1801.09656 [hep-ph], Published in Phys.Rev. D98 (2018) no.5, 054032, (with Qing-Hong Cao, Peng Sun and Feng Yuan).
24. *Updating and optimizing error parton distribution function sets in the Hessian approach*, e-Print: arXiv:1806.07950 [hep-ph], Published in Phys.Rev. D98 (2018) no.9, 094005, (with Carl Schmidt and Jon Pumplin).
25. *Updating and optimizing error parton distribution function sets in the Hessian approach. II*, e-Print: arXiv:1907.12177 [hep-ph], Published in Phys.Rev.D 100 (2019) 11, 114024, (with Tie-Jiun Hou, Zhite Yu, Sayipjamal Dulat, and Carl Schmidt).
26. *New CTEQ global analysis of quantum chromodynamics with high-precision data from the LHC*, e-Print: arXiv:1912.10053 [hep-ph], submitted to Phys. Rev. D (2020), (with Tie-Jiun Hou, Jun Gao, T.J. Hobbs, Keping Xie, Sayipjamal Dulat, Marco Guzzi, Joey Huston, Pavel Nadolsky, Jon Pumplin, Carl Schmidt, Ibrahim Sitiwaldi, and Dan Stump).