Selected Publications (Young-Kee Kim)

September 2013

Top Quark: Mass Measurements

1) “Top-quark mass measurement in events with jets and missing transverse energy using the full CDF data set”

2) “Measurement of the Mass Difference Between Top and Anti-top Quarks at CDF”

3) “Precision Top-Quark Mass Measurements at CDF”

4) “Combination of the top-quark mass measurements from the Tevatron collider”

5) “Top-quark mass measurement using events with missing transverse energy and jets at CDF”

6) “Top quark mass measurement using the template method at CDF”

7) “Measurement of the mass difference between top and anti-top quarks”

8) “Top Quark Mass Measurement using $m_{T^2}$ in the Dilepton Channel at CDF”

9) “First simultaneous measurement of the top quark mass in the lepton + jets and dilepton channels at CDF”

10) “Precise measurement of the top quark mass in the lepton+jets topology at CDF II”

11) “Measurement of the top quark mass using template methods on dilepton events in proton antiproton collisions at $\sqrt{s} = 1.96$ TeV”

12) “Precision top quark mass measurement in the lepton + jets topology in p anti-p collisions at $\sqrt{s} = 1.96$ TeV”

13) “Top quark mass measurement using the template method in the lepton + jets channel at CDF II”
Top Quark: Width (or Lifetime) Measurements

14) “A Direct Measurement of the Total Decay Width of the Top Quark”

15) “Direct Top-Quark Width Measurement CDF”

16) “First Direct Bound on the Total Width of the Top Quark in pp-bar Collisions at $\sqrt{s} = 1.96$ TeV”

Discovery of the Top Quark

17) “Observation of top quark production in pp-bar collisions”

18) “Evidence for top quark production in pp-bar collisions at $\sqrt{s} = 1.8$ TeV”

19) “Evidence for top quark production in pp-bar collisions at $\sqrt{s} = 1.8$ TeV”

W Boson: Mass Measurements

20) “Combination of CDF and DZero results on W boson mass and width”

21) “Measurement of the W boson mass with the Collider Detector at Fermilab”

22) “The W mass at the Tevatron collider”

23) “Measurement of the W boson mass”

24) “Measurement of the W boson mass”

25) “Measurements of the mass and width of the W boson from CDF”
By CDF Collaboration (Young-Kee Kim for the collaboration).
In *Meribel les Allues 1994, Proceedings, '94 electroweak interactions and unified theories* 41-49,
Selected Publications (Young-Kee Kim)

W Boson: Width Measurements

26) “Combination of CDF and D0 results on the W boson width”
   By Tevatron Electroweak Working Group and CDF and D0 Collaboration (B. Ashmanskas et al.).
   hep-ex/0510077.

27) “Direct measurement of the W boson width in pp-bar collisions at $\sqrt{s} = 1.8$ TeV”

28) “A Direct measurement of the W boson width”

Search for the Higgs Boson

29) “Higgs Boson Studies at the Tevatron”

30) “Combination of searches for the Higgs boson using the full CDF data set”

31) “Updated search for the standard model Higgs boson in events with jets and missing transverse
    energy using the full CDF data set”

32) “Combined search for the standard model Higgs boson decaying to a bb pair using the full CDF
    data set”

33) “Combined CDF and D0 Upper Limits on Standard Model Higgs Boson Production with up to 8.2fb$^{-1}$
    of Data”

Electroweak Physics

34) “Search for WZ+ZZ production with MET + jets with $b$ enhancement at $\sqrt{s} = 1.96$ TeV”

35) “Measurement of the forward-backward charge asymmetry of electron positron pairs in pp-bar
    collisions at $\sqrt{s} = 1.96$ TeV”

36) “First measurements of inclusive W and Z cross sections from Run II of the Tevatron collider”

37) “Measurement of the lepton charge asymmetry in W boson decays produced in pp-bar collisions”

38) “Precision tests of the electroweak interaction from hadron hadron colliders”
39) “Limits on WWZ and WWγ couplings from WW and WZ production in pp-bar collisions at √s =1.8 TeV”

40) “The Charge asymmetry in W boson decays produced in pp-bar collisions at √s =1.8 TeV”

41) “Measurement of the ratio $\alpha B(W \rightarrow e\nu) / \alpha B(Z \rightarrow e^+e^-)$ in pp-bar collisions at √s =1.8 TeV”

**Bottom Quark Physics**

42) “Updated Search for the Flavor-Changing Neutral-Current Decay $D^0 \rightarrow \mu^+\mu^-$

43) “Observation of $B^0_s$ - anti- $B^0_s$ Oscillations”

44) “Measurement of the $B^0_s$ - anti- $B^0_s$ Oscillation Frequency”

45) “Measurement of the ratios of branching fractions $B(B_s^0 \rightarrow D_s^\mp \pi^\mp)/B(B^0 \rightarrow D^\pm \pi^\mp)$ and $B(B^+ \rightarrow D^0 \pi^+)$ / $B(B^0 \rightarrow D^0 \pi^-)$”

46) “Measurement of the mass difference $m(D_s^\mp) - m(D^\mp)$ at CDF II”

47) “A measurement of sin(2β) from $B \rightarrow J/\psi K_S^0$ with the CDF detector”

48) “Measurement of the CP-violation parameter sin(2β) in $B_d^0 B_d^0$-bar $\rightarrow J/\psi K_S^0$ decays”

**QCD physics**

49) “A comparison of quark and gluon jets produced in high-energy $e^+e^-$ annihilations”

**Search for New Physics**

50) “Search for new physics in high $p_T$ like-sign dilepton events at CDF II”

51) “Inclusive search for new physics with like-sign dilepton events in pp-bar collisions at √s =1.96 TeV”
52) “Inclusive search for anomalous production of high $p_T$ like-sign lepton pairs in pp-bar collisions at $\sqrt{s} = 1.96$ TeV”

**Instrumentation**

**ATLAS Experiment: FTK Trigger**

53) “A fast hardware tracker for the ATLAS trigger system”

54) “FTK: A fast track trigger for ATLAS”

55) “The Fast Tracker real time processor and its impact on muon isolation, tau and $b$-Jet online selections at ATLAS”

56) “Development of FTK architecture: a fast hardware track trigger for the ATLAS detector”
By A. Annovi, M. Beretta, E. Bossini, A. Boveia, E. Brubaker, F. Canelli, V. CavaSinni, F. Crescioli et al. arXiv:0910.1126 [physics.ins-det].

**CDF Experiment: Second-Level Trigger**

57) “Performance study of GPUs in real-time trigger applications for HEP experiments”

**CDF Experiment: Tracking Detector**

58) “CDF central outer tracker”

**AMY Experiment: Tracking Detector**

59) “The Design of the AMY central drift chamber and performance in a 3-T magnetic field”

**CDF Experiment: Time-of-Flight Detector**

60) “A time-of-flight detector in CDF-II”

61) “The CDF-II time-of-flight detector”
Selected Publications (Young-Kee Kim)

62) “A Time-of-flight detector for CDF”

63) “Design and performance tests of the CDF time-of-flight system”

Mice Experiment: Beam Studies

64) “Proton Contamination Studies in the MICE Muon Beam Line”

65) “The MICE Muon Beam on ISIS and the beam-line instrumentation of the Muon Ionization Cooling Experiment”

International Linear Collider


68) “International Linear Collider Reference Design Report Volume 2: Physics at the ILC”

Strategic Planning and Overview

69) “Fundamental Physics at the Intensity Frontier”

70) “Fermilab: A plan for discovery”
   By Christopher Hill, Craig Hogan, Steve Holmes, Young-Kee Kim, Joseph Lykken, Chris Quigg,
   Katie Yurkewicz (2011).

71) “Physics with a High Intensity Proton Source at Fermilab: Project X Golden Book”
   By Jeffrey Appel, David Asner, Ikaros Bigi, Douglas Bryman, Andrzej Buras, Marcela Carena,
   Roberto Carosi, Dave Christian et al. (2010)

72) “Fermilab Steering Group Report”
   By Eugene Beier, Joel Butler, Sally Dawson, Helen Edwards, Thomas Himel, Stephen Holmes,
   Young-Kee Kim, Andrew Lankford et al. (2007)

   By Hugh E. Montgomery, (Chairperson), Stephen D. Holmes, (Deputy-Chairperson), Jeff Appel,
74) “Tevatron: Present status and future prospects”  

75) “Report of the working group on precision measurements”  

By TeV-2000 Study Group Collaboration (D. Amidei et al.).

77) “Physics from TRISTAN”  