

Morris Swartz

Johns Hopkins University
Department of Physics and Astronomy
3400 N. Charles St.
Baltimore, MD 21218 USA

Phone: +1(410) 516-5159
Fax: +1(410) 516-7239
Email: morris@jhu.edu
Homepage: <http://pha.jhu.edu/people/faculty/morris.html>

Personal

Born: 3/20/1954

United States Citizen

Education

B.S. Physics, Worcester Polytechnic Institute, 1976

Ph.D. Physics, University of Chicago, 1983.

Employment

Full Professor, Dept of Physics & Astronomy, Johns Hopkins University
8/1998 - present

Permanent Staff Physicist, Research Division, SLAC
10/1993 - 8/1998

Assistant Professor, Research Division, SLAC
10/1986 - 9/1993

Staff Physicist, EP Division, CERN
8/1985 - 9/1986

Scientific Associate, EP Division, CERN
8/1983 - 7/1985

Research Assistant, Enrico Fermi Institute, University of Chicago
9/1976 - 7/1983

Teaching Experience

Stanford University

Physics 351/352, Elementary Particle Physics, 6 quarters: 1988/1989, 1989/1990, 1990/1991

Summer/Winter Schools

Physics with Polarized Beams, Two Invited Lectures, 15th SLAC Summer Institute, Stanford, California, July 1987.

Mark II Physics at the SLC, Three Invited Lectures, XXVIIIth Schladming Winter School of Particle Physics, Schladming, Austria, March 1989.

Precision Experiments in Electroweak Interactions, Two Invited Lectures, 17th SLAC Summer Institute, Stanford, California, July 1989.

Physics at the SLC, Two Invited Lectures, NATO Advanced Study Institute: Z^0 Physics, Cargèse, France, August 1990.

Precise Electroweak Measurements: the view from below, Three Invited Lectures, 23rd SLAC Summer Institute, Stanford, California, July 1995.

Johns Hopkins University

172.631/172.632 Physics Seminar (1st year graduate), 1 credit, 10 semesters: 1999/2000 - 2003/2004

171.103 General Physics for the Biological Sciences, 4 credits, 4 semesters: Fall 2000 - Fall 2003

171.732 Elementary Particle Physics, 3 credits, 4 semesters: Spring 1999, Spring 2000, Fall 2004, Spring 2012

171.412 Mathematical Methods for Physicists II (Numerical Methods), 4 credits, 3 semesters: Spring 2003 - Spring 2005

173.111/173.112 General Physics Laboratory I/II, 1 credit, 16 semesters: Fall 2005 - Spring 2012

173.115/173.116 Classical Physics Laboratory I/II (now Classical Mechanics Laboratory/Electricity & Magnetism Laboratory), 1 credit, 16 semesters: Fall 2005 - Spring 2012

172.711/172.712 Intermediate Physics Seminar (2nd year graduate), 1 credit, 4 semesters: Spring 2010 - present

Outreach

Co-Organizer/Mentor, JHU Quarknet Center (High School Teacher Professional Development): 2002-2011.

Co-Organizer, JHU Physics Fair: 2004-2012

Co-Organizer/Mentor, EPPOG/Quarknet Masterclasses (High School Students and Teachers): 2008-2012.

JHU Activities

University Service

Dean's Teaching Fellowship Committee: 2006/2007, 2008/2009, 2009/2010

Committee on the Scheduling of Classes: 2003-2004

Faculty Advisory Board of CER TA Training Institute: 2003-2006

KSAS/WSE Committee on the redesign of General Physics: 2006-2007

KSAS Premed Service Courses Committee: 2006-2007

Goldwater Scholarship Committee: 2004-2006

Faculty Assembly Steering Committee, 2008-2011

Departmental Service

Vice Chair, Academic Affairs: 2002-2008, 2009

Teaching Assignment Committee: 2010-2012

Chair, Faculty Search Committees: 1999-2001, 2004-2005

First Year Graduate Student Advisor: 5 years, 1999/2000-2003/2004

Chair of Computer Committee: 1999-2002

Chair Departmental Promotion Committees: 2006/2007, 2010/2011, 2011/2012

Joint PHA/Chemistry Faculty Search Committee: 2009-2010

Preliminary Exam Author: 5 E&M exams, 1 QM Exam

Graduate Program Committee: 2002-2008, 2012-2013

Undergraduate Program Committee: 2002-2008

Professional Activities

Fellow of the American Physical Society

Physical Review/PRL Referee

Director's Annual Review of the Physics Division of the LBL (1994)

Convener of the DPF Long Term Planning Study (1995)

Chair of cost/schedule review of \$100 million NSF Major Research Equipment initiative: Rare Symmetry Violating Processes, July 2000

Reviewer for NSF Science and Technology Center competition, November 2000

Organizer of National Linear Collider Workshop at JHU, March 2001.

Chair, USCMS Tracker Institutional Board 2006-2008

USCMS Advisory Board

USCMS Institutional Advisory Board

Fermilab LHC Physics Center Advisory Board

USCMS Ad hoc committee to recommend new Research Program Director

CMS Tracker Editorial Board

USCMS M&O Pixel Offline Software Coordinator
NSF EPP Site Visiting Committee at SUNY Stony Brook
Panofsky Prize Committee of the American Physical Society
CMS Publications Committee

Research

Summary

Early Fermilab-based Research (1976-1983)

Design and testing of large cell drift chambers, 1976-1977
Proposal to study neutrino-electron elastic scattering (Fermilab P600), 1977-1978
Study of large transverse momentum hadrons in π^-N and pN collisions, 1978-1980
Study of large mass muon pairs in π^-N collisions (Thesis), 1980-1983

Postdoctoral Research at CERN $S\bar{p}\bar{p}S$ Collider: UA2 Collaboration (1983-1986)

Emulator-based improvements to the data acquisition system
Analysis and interpretation of $W \rightarrow e\nu$ and $Z \rightarrow ee$ final states
Improved identification of low p_t electrons: search for excited electrons + scalar W bosons.

Research at SLAC (1986-2001)

Study of mass and width of the Z Boson with Mark II detector
Search for doubly-charged Higgs bosons with Mark II data and published PEP/PETRA data
Construction of Extraction Line Møller Polarimeter
Observation of bound state effects in Møller Polarimeter and solution of large discrepancy with Compton device
Calculation and verification of the radiative corrections to polarized Compton cross section
Reanalysis and improvement of the hadronic vacuum polarization corrections to the fine structure constant
Leader of SLD Electroweak Working Group
Measurement of the Z Left-Right Asymmetry: world's most precise test of the electroweak Standard Model

Research at CERN LHC: CMS Collaboration (1999-present)

Testing and characterization of CMS Pixel Sensors
Development of the world's best model of radiation damaged silicon detectors
Development and deployment of simulation-based Si pixel reconstruction algorithm
Development and deployment of simulation-based Si strip reconstruction algorithm
Development and deployment of Si detector cluster splitting algorithm and improvement of tracking in dense jets
Search for 3rd generation final states from massive exotic states

External Funding

Principal Investigator, *Studies of Elementary Particles*, NSF award PHY-0071001, 5/2000-5/2003, \$2,010,794.

Principal Investigator, *Studies of Elementary Particles*, NSF award PHY-0245040, \$600,000.00 from 8/03-8/04.

Principal Investigator, *Studies of Elementary Particles*, NSF award PHY-0457374, \$1,675,000.00 from 4/05-3/08.

Principle Investigator, HP Technology for Teaching Grant, \$53,133.

Principal Investigator, *Studies of Elementary Particles*, NSF award PHY-0758083, \$1,506,000 from 4/08-3/11.

Principal Investigator, *Studies of Elementary Particles*, Supplement to NSF award PHY-0758083, \$165,000.

Principal Investigator, *Studies of Elementary Particles*, NSF award PHY-1100862, \$1,650,000 from 7/11-6/14.

Conference Talks and Lectures

W and Z⁰ Physics in UA2, Invited Talk, U.K. Physics Forum on Supersymmetry, Abingdon, U.K., May 1984.

UA2 Physics, Invited Plenary Talk, American Physical Society Division of Particles and Fields, Santa Fe, New Mexico, November 1984.

Recent Results From UA2, Invited Talk, New Particles 1985, Madison, Wisconsin, May 1985.

W and Z⁰ Physics in UA2, Invited Talk, American Physical Society Spring Meeting, Washington, D.C., April 1986.

Recent Results from UA2, Invited Talk, Aspen Winter Physics Conference, Aspen, Colorado, January 1987.

Physics with Polarized Beams, Two Invited Lectures, 15th SLAC Summer Institute, Stanford, California, July 1987.

Polarization at SLC, Invited Talk, Workshop on Polarization at LEP, Geneva, Switzerland, November 1987.

Status of the SLC and Physics with the Mark II Detector, Invited Talk, XIth Nordic Meeting on Particle Physics, Spaaind, Norway, January 1988.

Introduction to Polarized Z⁰ Physics, Invited Talk, Eighth International Symposium on High Energy Spin Physics, Minneapolis, Minnesota., September 1988.

Mark II Physics at the SLC, Three Invited Lectures, XXVIIIth Schladming Winter School of Particle Physics, Schladming, Austria, March 1989.

Precision Experiments in Electroweak Interactions, Two Invited Lectures, 17th SLAC Summer Institute, Stanford, California, July 1989.

Prospects for Polarized Z⁰ Physics, Invited Talk, Aspen Winter Physics Conference, Aspen, Colorado, January 1990.

Physics at the SLC, Two Invited Lectures, NATO Advanced Study Institute: Z^0 Physics, Cargèse, France, August 1990.

Polarization Experiments at the Z^0 , Invited Talk, Workshop on Precise Measurements in Electroweak Physics, Santa Barbara, California, February 1991.

Searching for the 17 KeV Neutrino with a Tritium Based Missing Mass Experiment, Contributed Talk, Workshop on the 17 KeV Neutrino Question, Berkeley, California, December 1991.

First Measurement of the Left-Right Z^0 Cross Section Asymmetry in Polarized e^-e^+ Collisions at the SLC, Invited Plenary Talk, Tenth International Symposium on High Energy Spin Physics, Nagoya, Japan, November 1992.

Recent Results from the Polarized SLC, Invited Talk, Thirteenth International Conference on Physics in Collision, Heidelberg, Germany, June 1993.

Tests of the Electroweak Standard Model at High Energies ($\sqrt{s} > 50$ GeV), Invited Talk, Sixteenth International Symposium on Lepton and Photon Interactions, Ithaca, New York, August 1993.

Recent Results From SLD, Invited Talk, Fourth International Conference on Physics Beyond the Standard Model, Lake Tahoe, California, December 1994.

Electroweak Radiative Corrections and Measurements of R_{had} , Invited Talk, Workshop on the Tau-Charm Factory, Argonne, Illinois, June 1995.

Precise Electroweak Measurements: the view from below, Three Invited Lectures, 23rd SLAC Summer Institute, Stanford, California, July 1995.

Experimental Electroweak Results from Electron-Positron Colliders, Invited Plenary Talk, Workshop on New Directions for High Energy Physics (Snowmass 96), Snowmass, Colorado, June 1996.

Final 1994-5 Left-Right Asymmetry Measurement from SLD, Invited Talk, Cracow International Symposium on Radiative Corrections (CRAD 96), Cracow, Poland, August 1996.

Z-Pole Electroweak Results, Invited Plenary Talk, Eighteenth International Physics In Collision (PIC 98), Frascati, Italy, June 1998.

Precision Electroweak Physics at the Z, Invited Plenary Talk, Nineteenth International Symposium on Lepton and Photon Interactions (LP99), Stanford, California, August 1999.

Precise Electroweak Measurements and the Higgs Mass, Invited Talk, Workshop On The Future Of Higgs Physics, Batavia, IL, May 3, 2001.

Precise Electroweak Measurements and the Higgs Mass, Invited Talk, APS/DPF/DPB Summer Study On The Future Of Particle Physics, July 2, 2001.

CMS Pixel Simulations, Invited Talk, VERTEX 2002, Kona HI, November, 2002.

An A_{LR} Retrospective, Invited Talk, Electroweak Precision Data and the Higgs Mass, Zeuthen (Germany), February 2003.

Double junction simulation of CMS pixel test beam data, 4th RD50 - Workshop on Radiation hard semiconductor devices? for very high luminosity colliders, Geneva Switzerland, May 2004.

Type Inversion in Irradiated Silicon Detectors: a half truth?, DPF2004, Riverside CA, August 2004.

Updated double junction simulation of CMS pixel test beam data, 6th RD50 Workshop on Radiation hard semiconductor devices for very high luminosity colliders, Helsinki Finland, June 2005.

Charge collection in irradiated pixel sensors: beam test measurements and simulation, Pixel2005, Bonn, Germany, September 2005.

Charlie and ALR: A Historical Perspective, Invited Talk, CharlieFest (honoring C.Y. Prescott), Stanford CA, January 2006.

Simulation of Heavily Irradiated Silicon Pixel Sensors, Invited talk, International Symposium on the Development of Detectors for Particle, AstroParticle and Synchrotron Radiation Experiments (SNICo6), Stanford CA, April 2006.

A New Technique for the Reconstruction, Validation, and Simulation of Hits in the CMS Pixel Detector, Invited talk, Vertex 2007: 16th International Workshop On Vertex Detectors, Lake Placid NY, September 2007.

Performance of the CMS Pixel Detector at the LHC, Invited Talk, TIPP 2011 (Technology and Instrumentation in Particle Physics 2011), Chicago, June 2011.

40th SSI: 23 Years of Precision Electroweak Physics, Invited Talk, SLAC Summer Institute, Stanford CA, July 2012.

Publications

"Proposal To Study Neutrino - Electron And Anti-Neutrino - Electron Scattering"

J. W. Cronin and M. L. Swartz

FERMILAB-PROPOSAL-0600(1978)

"The Relative Production Of π^{+-} , K^{+-} , P And Anti-P At Large Transverse Momentum In 200-GeV And 300-GeV π -P Collisions"

H. J. Frisch *et al.*

Phys. Rev. Lett. **44**, 511 (1980)

"A Comparison Of The Production Of Charged Hadrons At Large Transverse Momentum In π -P And P-P Collisions"

N. D. Giokaris *et al.*

Phys. Rev. Lett. **47**, 1690 (1981)

"The Atomic Weight Dependence Of Muon Pair Production In 225-GeV/C π -Nucleus Interactions"

H. J. Frisch *et al.*

Phys. Rev. D **25**, 2000 (1982)

"The Inclusive Production Of Hadrons At High P(T) In 200-GeV And 300-GeV π -P And π -N Collisions"

H. J. Frisch *et al.*

Phys. Rev. D **27**, 1001 (1983)

"Atomic Mass Dependence Of The Transverse Momentum Distribution Of Massive Muon Pairs From 225-GeV/C π -Nucleus Collisions"

M. L. Swartz *et al.*

Phys. Rev. Lett. **53**, 32 (1984)

"Measurement Of Very Large Transverse Momentum Jet Production At The Cern Anti-P-P Collider"

P. Bagnaia *et al.* [UA2 Collaboration]

Phys. Lett. B **138**, 430 (1984)

“Observation Of Electrons Produced In Association With Hard Jets And Large Missing Transverse Momentum In P Anti-P Collisions At $S^{*(1/2)} = 540\text{-GeV}$ ”

P. Bagnaia *et al.* [Bern-CERN-Copenhagen-Orsay-Pavia-Saclay Collaboration and UA2 Collaboration]
Phys. Lett. B **139**, 105 (1984)

“A Study Of High Transverse Momentum Electrons Produced In Anti-P P Collisions At 540-GeV”

P. Bagnaia *et al.* [UA2 Collaboration and Bern-CERN-Copenhagen- Orsay-Pavia-Saclay Collaboration]
Z. Phys. C **24**, 1 (1984)

“The Atomic Mass Dependence of Massive Muon Pair Production in 225 GeV/c pi-Nucleus Interactions”

M. L. Swartz
FERMILAB-THESIS-1984-28(1984)

“Measurement Of Jet Fragmentation Properties At The Cern Anti-P P Collider”

P. Bagnaia *et al.* [UA2 Collaboration and Bern-CERN-Copenhagen- Orsay-Pavia-Saclay Collaboration]
Phys. Lett. B **144**, 291 (1984)

“Measurement Of Jet Production Properties At The Cern Anti-P P Collider”

P. Bagnaia *et al.* [UA2 Collaboration and Bern-CERN-Copenhagen- Orsay-Pavia-Saclay Collaboration]
Phys. Lett. B **144**, 283 (1984)

“Study Of Electron Pairs Below The Zo Mass Produced In Anti-P P Collisions At $S^{*(1/2)} = 540\text{-GeV}$ ”

P. Bagnaia *et al.* [UA2 Collaboration]
Phys. Lett. B **154**, 338 (1985)

“The Production Of Massive Muon Pairs In Pi- Nucleus Collisions”

H. B. Greenlee *et al.*
Phys. Rev. Lett. **55**, 1555 (1985)

“Measurement Of The $S^{*(1/2)}$ Dependence Of Jet Production At The Cern Anti-P P Collider”

J. A. Appel *et al.* [UA2 Collaboration]
Phys. Lett. B **160**, 349 (1985)

“Experimental Study Of The Emergence Of Two Jet Dominance In Anti-P P Collisions At $S^{*(1/2)} = 630\text{-GeV}$ ”

J. A. Appel *et al.* [UA2 Collaboration]
Phys. Lett. B **165**, 441 (1985)

“Measurement Of W^{+-} And Zo Properties At The Cern Anti-P P Collider”

J. A. Appel *et al.* [UA2 Collaboration]
Z. Phys. C **30**, 1 (1986)

“A Study Of Three Jet Events At The Cern Anti-P P Collider”

J. A. Appel *et al.* [UA2 Collaboration]
Z. Phys. C **30**, 341 (1986)

“DIRECT PHOTON PRODUCTION AT THE CERN anti-p p COLLIDER”

J. A. Appel *et al.* [UA2 Collaboration]
Phys. Lett. B **176**, 239 (1986)

“SEARCH FOR DECAYS OF THE W^{+-} AND Z BOSONS INTO QUARK - ANTI-QUARK PAIRS”

R. Ansari *et al.* [UA2 Collaboration]
Phys. Lett. B **186**, 452 (1987)

"Measurement of the Standard Model Parameters from a Study of W and Z Bosons"R. Ansari *et al.* [UA2 Collaboration]Phys. Lett. B **186**, 440 (1987)**"Measurement of W and Z Production Properties at the CERN anti-p p Collider"**R. Ansari *et al.* [UA2 Collaboration]Phys. Lett. B **194**, 158 (1987)**"JET MEASURES AND HADRONIC EVENT SHAPES AT THE CERN anti-p p COLLIDER"**R. Ansari *et al.* [UA2 Collaboration]Z. Phys. C **36**, 175 (1987)**"Search For Exotic Processes At The Cern P Anti-P Collider"**R. Ansari *et al.* [UA2 Collaboration]Phys. Lett. B **195**, 613 (1987)**"DIRECT PHOTON PRODUCTION IN anti-p p COLLISIONS AT $s^{1/2} = 630\text{-GeV}$ "**R. Ansari *et al.* [UA2 Collaboration]Z. Phys. C **41**, 395 (1988)**"MEASUREMENT OF THE STRONG COUPLING CONSTANT α_s FROM A STUDY OF W BOSONS PRODUCED IN ASSOCIATION WITH JETS"**R. Ansari *et al.* [UA2 Collaboration]Phys. Lett. B **215**, 175 (1988)**"THE MARK-II DETECTOR FOR THE SLC"**G. S. Abrams *et al.*Nucl. Instrum. Meth. A **281**, 55 (1989)**"Limits On Doubly Charged Higgs Bosons And Lepton Flavor Violation"**

M. L. Swartz

Phys. Rev. D **40**, 1521 (1989)**"FIRST MEASUREMENTS OF HADRONIC DECAYS OF THE Z BOSON"**G. S. Abrams *et al.* [MARK-II Collaboration]Phys. Rev. Lett. **63**, 1558 (1989)**"Initial Measurements of Z Boson Resonance Parameters in $e^+ e^-$ Annihilation"**G. S. Abrams *et al.*Phys. Rev. Lett. **63**, 724 (1989)**"Measurements of Z Boson Resonance Parameters in $e^+ e^-$ Annihilation"**G. S. Abrams *et al.*Phys. Rev. Lett. **63**, 2173 (1989)**"SEARCHES FOR NEW QUARKS AND LEPTONS PRODUCED IN Z BOSON DECAY"**G. S. Abrams *et al.*Phys. Rev. Lett. **63**, 2447 (1989)**"SEARCH FOR LONGLIVED MASSIVE NEUTRINOS IN Z DECAYS"**C. K. Jung *et al.*Phys. Rev. Lett. **64**, 1091 (1990)**"DETERMINATION OF α_s FROM A DIFFERENTIAL JET MULTIPLICITY DISTRIBUTION AT SLC AND PEP"**S. Komamiya *et al.*Phys. Rev. Lett. **64**, 987 (1990)

"MEASUREMENT OF THE b anti- b FRACTION IN HADRONIC Z DECAYS"J. F. Kral *et al.*Phys. Rev. Lett. **64**, 1211 (1990)**"MEASUREMENT OF Z DECAYS INTO LEPTON PAIRS"**G. S. Abrams *et al.*Phys. Rev. Lett. **63**, 2780 (1989)**"MEASUREMENTS OF CHARGED PARTICLE INCLUSIVE DISTRIBUTIONS IN HADRONIC DECAYS OF THE Z BOSON"**G. S. Abrams *et al.*Phys. Rev. Lett. **64**, 1334 (1990)**"A SEARCH FOR DOUBLY CHARGED HIGGS SCALARS IN Z DECAY"**M. L. Swartz *et al.*Phys. Rev. Lett. **64**, 2877 (1990)**"A SEARCH FOR DECAYS OF THE Z TO UNSTABLE NEUTRAL LEPTONS WITH MASS BETWEEN 2.5-GeV AND 22-GeV"**P. Burchat *et al.*Phys. Rev. D **41**, 3542 (1990)**"AN IMPROVED METHOD FOR SETTING UPPER LIMITS WITH SMALL NUMBER OF EVENTS"**

M. L. Swartz

Nucl. Instrum. Meth. A **294**, 278 (1990)**"SEARCH FOR NONMINIMAL HIGGS BOSONS FROM Z BOSON DECAY"**S. Komamiya *et al.*Phys. Rev. Lett. **64**, 2881 (1990)**"A SEARCH FOR PAIR PRODUCTION OF HEAVY STABLE CHARGED PARTICLES IN Z DECAYS"**E. Soderstrom *et al.*Phys. Rev. Lett. **64**, 2980 (1990)**"SEARCHES FOR SUPERSYMMETRIC PARTICLES PRODUCED IN Z BOSON DECAY"**T. Barklow *et al.*Phys. Rev. Lett. **64**, 2984 (1990)**"Measurement of the b anti- b fraction in hadronic Z_0 decays with precision vertex detectors"**R. Jacobsen *et al.*Phys. Rev. Lett. **67**, 3347 (1991)**"Measurement of the charged multiplicity of events containing bottom hadrons at $E(\text{cm}) = 91\text{-GeV}$ "**B. A. Schumm *et al.*Phys. Rev. D **46**, 453 (1992)**"First measurement of the left-right cross-section asymmetry in Z boson production by $e^+ e^-$ collisions"**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **70**, 2515 (1993)**"First measurement of the left-right asymmetry in Z boson production"**R. D. Elia *et al.* [SLD Collaboration]Mod. Phys. Lett. A **8**, 2237 (1993)

“A Measurement of α_s from jet rates at the Z_0 resonance”K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **71**, 2528 (1993)**“Measurement of the charged multiplicity of $Z_0 \rightarrow b$ anti- b events”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **72**, 3145 (1994) [arXiv:hep-ex/9405004]**“Measurement of α_s from energy-energy correlations at the Z_0 resonance”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **50**, 5580 (1994) [arXiv:hep-ex/9405006]**“Precise measurement of the left-right cross-section asymmetry in Z boson production by $e^+ e^-$ collisions”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **73**, 25 (1994) [arXiv:hep-ex/9404001]**“Measurement of $A(b)$ and $A(c)$ from the left-right forward - backward asymmetry of leptons in hadronic events at the Z_0 resonance”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **74**, 2895 (1995)**“A Search for jet handedness in hadronic Z_0 decays”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **74**, 1512 (1995) [arXiv:hep-ex/9501006]**“Polarized Bhabha Scattering A Precision Measurement Of The Electron Neutral Current Couplings”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **74**, 2880 (1995) [arXiv:hep-ex/9410009]**“Measurement of $A(b)$ from the left-right forward - backward asymmetry of b quark production in Z_0 decays using a momentum weighted track charge technique”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **74**, 2890 (1995)**“Measurement of $\alpha_s (M(Z)^{**2})$ from hadronic event observables at the Z_0 resonance”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **51**, 962 (1995) [arXiv:hep-ex/9501003]**“Observation of target electron momentum effects in single arm Moller polarimetry”**M. Swartz *et al.*Nucl. Instrum. Meth. A **363**, 526 (1995) [arXiv:hep-ex/9412006]**“A Test Of The Flavor Independence Of Strong Interactions”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **53**, 2271 (1996) [arXiv:hep-ex/9501005]**“Putting a new spin on particle physics”**

M. Swartz

SLAC Beam Line **25N1**, 19 (1995)**“First study of rapidity gaps in $e^+ e^-$ annihilation”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **76**, 4886 (1996) [arXiv:hep-ex/9607008]

“Comparison of a new calculation of energy-energy correlations with $e^+ e^- \rightarrow$ hadrons data at the Z_0 resonance”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. D **52**, 4240 (1995)

“Measurement of the tau lifetime at SLD”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. D **52**, 4828 (1995) [arXiv:hep-ex/9506004]

“Measurements of $R(b)$ with impact parameters and displaced vertices”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. D **53**, 1023 (1996)

“Reevaluation of the Hadronic Contribution to $\alpha(M_Z^2)$ ”

M. L. Swartz
Phys. Rev. D **53**, 5268 (1996) [arXiv:hep-ph/9509248]

“Measurement of the average B hadron lifetime in Z_0 decays using reconstructed vertices”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. Lett. **75**, 3624 (1995) [arXiv:hep-ex/9511005]

“First Measurement of the T-odd Correlation between the Z_0 Spin and the Three-jet Plane Orientation in Polarized Z_0 Decays to Three Jets”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. Lett. **75**, 4173 (1995) [arXiv:hep-ex/9510005]

“Measurement of the left-right forward - backward asymmetry for charm quarks with D^{*+} and D^+ mesons”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. Lett. **75**, 3609 (1995)

“Factorial and cumulant moments in $e^+ e^- \rightarrow$ hadrons at the Z_0 resonance”

K. Abe *et al.* [SLD Collaboration]
Phys. Lett. B **371**, 149 (1996) [arXiv:hep-ex/9601010]

“A study of the orientation and energy partition of three-jet events in hadronic Z_0 decays”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. D **55**, 2533 (1997) [arXiv:hep-ex/9608016]

“Measurement of the charged multiplicities in b, c and light quark events from Z_0 decays”

K. Abe *et al.* [SLD Collaboration]
Phys. Lett. B **386**, 475 (1996) [arXiv:hep-ex/9608008]

“First measurement of the left-right charge asymmetry in hadronic Z boson decays and a new determination of $\sin^2(\Theta(W)(\text{eff}))$ ”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. Lett. **78**, 17 (1997) [arXiv:hep-ex/9609019]

“An improved measurement of the left-right Z_0 cross-section asymmetry”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. Lett. **78**, 2075 (1997) [arXiv:hep-ex/9611011]

“Measurement of the B^+ and B_0 lifetimes using topological vertexing”

K. Abe *et al.* [SLD Collaboration]
arXiv:hep-ex/9702002
SLAC-PUB-7266(1996)

“Measurement of the tau neutrino helicity and Michel parameters in polarized e+ e- collisions”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. Lett. **78**, 4691 (1997) [arXiv:hep-ex/9701020]

“Measurement of the B+ and Bo lifetimes from semileptonic decays”

K. Abe *et al.* [SLD Collaboration]
 arXiv:hep-ex/9702001
 SLAC-PUB-7117(1997)

“Measurement of leading particle effects in decays of Zo bosons into light flavors”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. Lett. **78**, 3442 (1997) [Erratum-ibid. **79**, 959 (1997)] [arXiv:hep-ex/9702009]

“Measurement of the B+ and Bo lifetimes using topological reconstruction of inclusive and semileptonic decays”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. Lett. **79**, 590 (1997)

“Direct measurement of leptonic coupling asymmetries with polarized Z’s”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. Lett. **79**, 804 (1997) [arXiv:hep-ex/9704012]

“Measurement of the B hadron energy distribution in Zo decays”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. D **56**, 5310 (1997) [arXiv:hep-ex/9707011]

“Measurement of R(b) using a vertex mass tag”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. Lett. **80**, 660 (1998) [arXiv:hep-ex/9708015]

“A complete order-alpha3 calculation of the cross section for polarized Compton scattering”**

M. L. Swartz
 Phys. Rev. D **58**, 014010 (1998) [arXiv:hep-ph/9711447]

“A direct measurement of parity violation in the coupling of Zo bosons to b quarks using a mass tag and momentum-weighted track charge”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. Lett. **81**, 942 (1998)

“Production of pi+, K+, Ko, K*o, Phi, p and Lambdao in hadronic Zo decays”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. D **59**, 052001 (1999) [arXiv:hep-ex/9805029]

“An improved test of the flavor independence of strong interactions”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. D **59**, 012002 (1999) [arXiv:hep-ex/9805023]

“Direct measurement of A(b) in Zo decays using charged kaon tagging”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. Lett. **83**, 1902 (1999)

“First study of the structure of e+ e- -> b anti-b g events and limits on the anomalous chromomagnetic coupling of the b-quark”

K. Abe *et al.* [SLD Collaboration]
 Phys. Rev. D **60**, 092002 (1999) [arXiv:hep-ex/9903004]

“Direct measurement of $A(b)$ and $A(c)$ at the Z_0 pole using a lepton tag”K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **83**, 3384 (1999)**“Precision observables and electroweak theories”**

J. A. Bagger, A. F. Falk and M. Swartz

Phys. Rev. Lett. **84**, 1385 (2000) [arXiv:hep-ph/9908327]**“Search for charmless hadronic decays of B mesons with the SLD detector”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **62**, 071101 (2000) [arXiv:hep-ex/9910050]**“Precise measurement of the b-quark fragmentation function in Z_0 boson decays”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **84**, 4300 (2000) [arXiv:hep-ex/9912058]**“A Combination of preliminary electroweak measurements and constraints on the standard model”**D. Abbaneo *et al.* [ALEPH Collaboration and DELPHI Collaboration and L3 Collaboration and]

SLAC-REPRINT-2000-098(2000)

“A high-precision measurement of the left-right Z boson cross-section asymmetry”K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **84**, 5945 (2000) [arXiv:hep-ex/0004026]**“First direct measurement of the parity-violating coupling of the Z_0 to the s-quark”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **85**, 5059 (2000) [arXiv:hep-ex/0006019]**“Measurement of $A(c)$ with charmed mesons at SLD”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **63**, 032005 (2001) [arXiv:hep-ex/0009035]**“An improved direct measurement of leptonic coupling asymmetries with polarized Z bosons”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **86**, 1162 (2001) [arXiv:hep-ex/0010015]**“Improved measurement of the probability for gluon splitting into b anti-b in Z_0 decays”**K. Abe *et al.* [SLD Collaboration]Phys. Lett. B **507**, 61 (2001) [arXiv:hep-ex/0102002]**“Improved direct measurement of $A(b)$ and $A(c)$ at the Z_0 pole using a lepton tag”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. Lett. **88**, 151801 (2002) [arXiv:hep-ex/0111035]**“Measurement of the b-quark fragmentation function in Z_0 decays”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **65**, 092006 (2002) [Erratum-ibid. D **66**, 079905 (2002)] [arXiv:hep-ex/0202031]**“An improved study of the structure of $e^+ e^- \rightarrow b \text{ anti-}b g$ events and limits on the anomalous chromomagnetic coupling of the b-quark”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **66**, 052001 (2002) [arXiv:hep-ex/0205066]**“A search for time-dependent $B/s_0 - \text{anti-}B/s_0$ oscillations using exclusively reconstructed D/s_{\pm} mesons”**K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **66**, 032009 (2002) [arXiv:hep-ex/0207048]

“Improved direct measurement of the parity-violation parameter $A(b)$ using a mass tag and momentum-weighted track charge. ((B))”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. Lett. **90**, 141804 (2003) [arXiv:hep-ex/0208044]

“Beam test results of the US - CMS forward pixel detector”

M. Atac *et al.*
Nucl. Instrum. Meth. A **488**, 271 (2002)

“Search for time-dependent B/so anti-B/so oscillations using a vertex charge dipole technique”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. D **67**, 012006 (2003) [arXiv:hep-ex/0209002]

“CMS pixel simulations”

M. Swartz
Nucl. Instrum. Meth. A **511**, 88 (2003)

“First measurement of the double-inclusive B / anti-B hadron energy distribution in $e^+ e^-$ annihilations, and of angle-dependent moments of the B and anti-B energies”

K. Abe *et al.* [SLD Collaboration]
Phys. Lett. B **578**, 45 (2004) [arXiv:hep-ex/0309058]

“Production of π^+ , π^- , K^+ , K^- , p and anti-p in light (uds), c and b jets from Z^0 decays”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. D **69**, 072003 (2004) [arXiv:hep-ex/0310017]

“Position dependence of charge collection in prototype sensors for the CMS pixel detector”

T. Rohe *et al.*
IEEE Trans. Nucl. Sci. **51**, 1150 (2004) [arXiv:physics/0312009]

“Tests of silicon sensors for the CMS pixel detector”

A. Dorokhov *et al.*
Nucl. Instrum. Meth. A **530**, 71 (2004) [arXiv:physics/0311050]

“Direct measurements of $A(b)$ and $A(c)$ using vertex/kaon charge tags at SLD”

K. Abe *et al.* [SLD Collaboration]
Phys. Rev. Lett. **94**, 091801 (2005) [arXiv:hep-ex/0410042]

“Fluence dependence of charge collection of irradiated pixel sensors”

T. Rohe *et al.*
Nucl. Instrum. Meth. A **552**, 232 (2005) [arXiv:physics/0411214]

“Simulation of heavily irradiated silicon pixel sensors and comparison with test beam measurements”

V. Chiochia *et al.*
IEEE Trans. Nucl. Sci. **52**, 1067 (2005) [arXiv:physics/0411143]

“Electric field measurement in heavily irradiated pixel sensors”

A. Dorokhov *et al.*
Nucl. Instrum. Meth. A **560**, 112 (2006) [arXiv:physics/0412036]

“The effect of highly ionising particles on the CMS silicon strip tracker”

W. Adam *et al.* [CMS Tracker Collaboration]
Nucl. Instrum. Meth. A **543**, 463 (2005)

"Measurement of the branching ratio of the Z_0 into heavy quarks"K. Abe *et al.* [SLD Collaboration]Phys. Rev. D **71**, 112004 (2005) [arXiv:hep-ex/0503005]**"A double junction model of irradiated silicon pixel sensors for LHC"**V. Chiochia *et al.*Nucl. Instrum. Meth. A **568**, 51 (2006) [arXiv:physics/0506228]**"Observation, modeling, and temperature dependence of doubly peaked electric fields in irradiated silicon pixel sensors"**M. Swartz *et al.*Nucl. Instrum. Meth. A **565**, 212 (2006) [arXiv:physics/0510040]**"Simulation and hit reconstruction of irradiated pixel sensors for the CMS experiment"**

E. Alagoz, V. Chiochia and M. Swartz

Nucl. Instrum. Meth. A **566**, 40 (2006)**"Sensor simulation and position calibration for the CMS pixel detector"**

V. Chiochia, E. Alagoz and M. Swartz

Nucl. Instrum. Meth. A **569**, 132 (2006) [arXiv:physics/0603192]**"CMS technical design report, volume II: Physics performance"**G. L. Bayatian *et al.* [CMS Collaboration]J. Phys. G **34**, 995 (2007)**"Design and performance of the silicon sensors for the CMS barrel pixel detector"**Y. Allkofer *et al.*Nucl. Instrum. Meth. A **584**, 25 (2008) [arXiv:physics/0702092]**"CMS physics technical design report: Addendum on high density QCD with heavy ions"**D. G. d'Enterria *et al.* [CMS Collaboration]J. Phys. G **34**, 2307 (2007)**"CMS expression of interest in the SLHC"**J. . (Nash *et al.* [CMS Collaboration]

CERN-LHCC-2007-014(2007)

"A new technique for the reconstruction, validation, and simulation of hits in the CMS pixel detector"

M. Swartz, D. Fehling, G. Giurgiu, P. Maksimovic and V. Chiochia

PoS VERTEX2007, 035 (2007)

Prepared for Vertex 2007: 16th International Workshop on Vertex Detectors, Lake Placid, New York, 23-28 Sep 2007

"Pixel Hit Reconstruction with the CMS Detector"

G. Giurgiu, D. Fehling, P. Maksimovic, M. Swartz and V. Chiochia [CMS Collaboration]

arXiv:0808.3804 [physics.ins-det]

"The CMS experiment at the CERN LHC"S. Chatrchyan *et al.* [CMS Collaboration]JINST **3**, S08004 (2008)**"Alignment of the CMS Silicon Tracker during Commissioning with Cosmic Rays"**S. Chatrchyan *et al.* [CMS Collaboration]JINST **5**, T03009 (2010) [arXiv:0910.2505 [physics.ins-det]]

“Performance and Operation of the CMS Electromagnetic Calorimeter”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03010 (2010) [arXiv:0910.3423 [physics.ins-det]]

“Precise Mapping of the Magnetic Field in the CMS Barrel Yoke using Cosmic Rays”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03021 (2010) [arXiv:0910.5530 [physics.ins-det]]

“Alignment of the CMS Muon System with Cosmic-Ray and Beam-Halo Muons”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03020 (2010) [arXiv:0911.4022 [physics.ins-det]]

“Time Reconstruction and Performance of the CMS Electromagnetic Calorimeter”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03011 (2010) [arXiv:0911.4044 [physics.ins-det]]

“Performance Study of the CMS Barrel Resistive Plate Chambers with Cosmic Rays”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03017 (2010) [arXiv:0911.4045 [physics.ins-det]]

“Aligning the CMS Muon Chambers with the Muon Alignment System during an Extended Cosmic Ray Run”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03019 (2010) [arXiv:0911.4770 [physics.ins-det]]

“CMS Data Processing Workflows during an Extended Cosmic Ray Run”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03006 (2010) [arXiv:0911.4842 [physics.ins-det]]

“Commissioning of the CMS Experiment and the Cosmic Run at Four Tesla”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03001 (2010) [arXiv:0911.4845 [physics.ins-det]]

“Performance of the CMS Drift Tube Chambers with Cosmic Rays”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03015 (2010) [arXiv:0911.4855 [physics.ins-det]]

“Performance of CMS Hadron Calorimeter Timing and Synchronization using Test Beam, Cosmic Ray, and LHC Beam Data”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03013 (2010) [arXiv:0911.4877 [physics.ins-det]]

“Identification and Filtering of Uncharacteristic Noise in the CMS Hadron Calorimeter”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03014 (2010) [arXiv:0911.4881 [physics.ins-det]]

“Commissioning of the CMS High-Level Trigger with Cosmic Rays”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03005 (2010) [arXiv:0911.4889 [physics.ins-det]]

“Performance of the CMS Drift-Tube Local Trigger with Cosmic Rays”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST 5, T03003 (2010) [arXiv:0911.4893 [physics.ins-det]]

“Calibration of the CMS Drift Tube Chambers and Measurement of the Drift Velocity with Cosmic Rays”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, T03016 (2010) [arXiv:0911.4895 [physics.ins-det]]

“Fine Synchronization of the CMS Muon Drift-Tube Local Trigger using Cosmic Rays”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, T03004 (2010) [arXiv:0911.4904 [physics.ins-det]]

“Performance of the CMS Hadron Calorimeter with Cosmic Ray Muons and LHC Beam Data”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, T03012 (2010) [arXiv:0911.4991 [physics.ins-det]]

“Performance of the CMS Cathode Strip Chambers with Cosmic Rays”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, T03018 (2010) [arXiv:0911.4992 [physics.ins-det]]

“Performance of CMS Muon Reconstruction in Cosmic-Ray Events”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, T03022 (2010) [arXiv:0911.4994 [physics.ins-det]]

“Commissioning and Performance of the CMS Silicon Strip Tracker with Cosmic Ray Muons”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, T03008 (2010) [arXiv:0911.4996 [physics.ins-det]]

“Measurement of the Muon Stopping Power in Lead Tungstate”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, P03007 (2010) [arXiv:0911.5397 [physics.ins-det]]

“Performance of the CMS Level-1 Trigger during Commissioning with Cosmic Ray Muons”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, T03002 (2010) [arXiv:0911.5422 [physics.ins-det]]

“Commissioning and Performance of the CMS Pixel Tracker with Cosmic Ray Muons”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **5**, T03007 (2010) [arXiv:0911.5434 [physics.ins-det]]

“Measurement of the Underlying Event Activity in Proton-Proton Collisions at 0.9 TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Eur. Phys. J. C **70**, 555 (2010) [arXiv:1006.2083 [hep-ex]]

“CMS Tracking Performance Results from early LHC Operation”

V. Khachatryan *et al.* [CMS Collaboration]
Eur. Phys. J. C **70**, 1165 (2010) [arXiv:1007.1988 [physics.ins-det]]

“Transverse momentum and pseudorapidity distributions of charged hadrons in pp collisions at $\sqrt{s} = 0.9$ and 2.36 TeV”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1002**, 041 (2010) [arXiv:1002.0621 [hep-ex]]

“Measurement of Bose-Einstein correlations with first CMS data”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **105**, 032001 (2010) [arXiv:1005.3294 [hep-ex]]

“Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **105**, 022002 (2010) [arXiv:1005.3299 [hep-ex]]

“Measurement of the charge ratio of atmospheric muons with the CMS detector”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Lett. B **692**, 83 (2010) [arXiv:1005.5332 [hep-ex]]

“Observation of Long-Range Near-Side Angular Correlations in Proton-Proton Collisions at the LHC”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1009**, 091 (2010) [arXiv:1009.4122 [hep-ex]]

“Search for Dijet Resonances in 7 TeV pp Collisions at CMS”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **105**, 211801 (2010) [arXiv:1010.0203 [hep-ex]]

“Search for Quark Compositeness with the Dijet Centrality Ratio in pp Collisions at $\sqrt{s}=7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **105**, 262001 (2010) [arXiv:1010.4439 [hep-ex]]

“First Measurement of the Cross Section for Top-Quark Pair Production in Proton-Proton Collisions at $\sqrt{s}=7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Lett. B **695**, 424 (2011) [arXiv:1010.5994 [hep-ex]]

“Prompt and non-prompt J/psi production in pp collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Eur. Phys. J. C **71**, 1575 (2011) [arXiv:1011.4193 [hep-ex]]

“Charged particle multiplicities in pp interactions at $\sqrt{s} = 0.9, 2.36, \text{ and } 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1101**, 079 (2011) [arXiv:1011.5531 [hep-ex]]

“Search for Stopped Gluinos in pp collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 011801 (2011) [arXiv:1011.5861 [hep-ex]]

“Measurement of the Isolated Prompt Photon Production Cross Section in pp Collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 082001 (2011) [arXiv:1012.0799 [hep-ex]]

“Measurements of Inclusive W and Z Cross Sections in pp Collisions at $\sqrt{s}=7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1101**, 080 (2011) [arXiv:1012.2466 [hep-ex]]

“Search for Microscopic Black Hole Signatures at the Large Hadron Collider”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Lett. B **697**, 434 (2011) [arXiv:1012.3375 [hep-ex]]

“Search for Pair Production of First-Generation Scalar Leptoquarks in pp Collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 201802 (2011) [arXiv:1012.4031 [hep-ex]]

“Search for Pair Production of Second-Generation Scalar Leptoquarks in pp Collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 201803 (2011) [arXiv:1012.4033 [hep-ex]]

“Measurement of the Inclusive Upsilon production cross section in pp collisions at $\sqrt{s}=7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. D **83**, 112004 (2011) [arXiv:1012.5545 [hep-ex]]

“Search for a heavy gauge boson W' in the final state with an electron and large missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Lett. B **698**, 21 (2011) [arXiv:1012.5945 [hep-ex]]

“Measurement of the B^+ Production Cross Section in pp Collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 112001 (2011) [arXiv:1101.0131 [hep-ex]]

“Search for Supersymmetry in pp Collisions at 7 TeV in Events with Jets and Missing Transverse Energy”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Lett. B **698**, 196 (2011) [arXiv:1101.1628 [hep-ex]]

“Search for Heavy Stable Charged Particles in pp collisions at $\sqrt{s}=7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1103**, 024 (2011) [arXiv:1101.1645 [hep-ex]]

“Inclusive b-hadron production cross section with muons in pp collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1103**, 090 (2011) [arXiv:1101.3512 [hep-ex]]

“Measurement of Bose-Einstein Correlations in pp Collisions at $\sqrt{s}=0.9$ and 7 TeV”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1105**, 029 (2011) [arXiv:1101.3518 [hep-ex]]

“Dijet Azimuthal Decorrelations in pp Collisions at $\sqrt{s} = 7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 122003 (2011) [arXiv:1101.5029 [hep-ex]]

“First Measurement of Hadronic Event Shapes in pp Collisions at $\sqrt{s}=7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Lett. B **699**, 48 (2011) [arXiv:1102.0068 [hep-ex]]

“Observation and studies of jet quenching in PbPb collisions at nucleon-nucleon center-of-mass energy = 2.76 TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. C **84**, 024906 (2011) [arXiv:1102.1957 [nucl-ex]]

“Measurement of Dijet Angular Distributions and Search for Quark Compositeness in pp Collisions at 7 TeV”

V. Khachatryan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 201804 (2011) [arXiv:1102.2020 [hep-ex]]

“Measurement of B anti-B Angular Correlations based on Secondary Vertex Reconstruction at $\sqrt{s}=7$ TeV”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1103**, 136 (2011) [arXiv:1102.3194 [hep-ex]]

“Strange Particle Production in pp Collisions at $\sqrt{s} = 0.9$ and 7 TeV”

V. Khachatryan *et al.* [CMS Collaboration]
JHEP **1105**, 064 (2011) [arXiv:1102.4282 [hep-ex]]

“Search for a Heavy Bottom-like Quark in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **701**, 204 (2011) [arXiv:1102.4746 [hep-ex]]

“Measurement of WW Production and Search for the Higgs Boson in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **699**, 25 (2011) [arXiv:1102.5429 [hep-ex]]

“Study of Z boson production in PbPb collisions at nucleon-nucleon centre of mass energy = 2.76 TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 212301 (2011) [arXiv:1102.5435 [nucl-ex]]

“Search for a W' boson decaying to a muon and a neutrino in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **701**, 160 (2011) [arXiv:1103.0030 [hep-ex]]

“Search for Supersymmetry in pp Collisions at $\sqrt{s} = 7$ TeV in Events with Two Photons and Missing Transverse Energy”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 211802 (2011) [arXiv:1103.0953 [hep-ex]]

“Search for Resonances in the Dilepton Mass Distribution in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1105**, 093 (2011) [arXiv:1103.0981 [hep-ex]]

“Search for Physics Beyond the Standard Model in Opposite-Sign Dilepton Events at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1106**, 026 (2011) [arXiv:1103.1348 [hep-ex]]

“Measurement of the lepton charge asymmetry in inclusive W production in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1104**, 050 (2011) [arXiv:1103.3470 [hep-ex]]

“Search for Large Extra Dimensions in the Diphoton Final State at the Large Hadron Collider”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1105**, 085 (2011) [arXiv:1103.4279 [hep-ex]]

“Measurement of the Inclusive Z Cross Section via Decays to Tau Pairs in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1108**, 117 (2011) [arXiv:1104.1617 [hep-ex]]

“Search for Neutral MSSM Higgs Bosons Decaying to Tau Pairs in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 231801 (2011) [arXiv:1104.1619 [hep-ex]]

“Measurement of the differential dijet production cross section in proton-proton collisions at $\sqrt{s}=7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration Collaboration]
Phys. Lett. B **700**, 187 (2011) [arXiv:1104.1693 [hep-ex]]

“Measurement of the B_0 production cross section in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **106**, 252001 (2011) [arXiv:1104.2892 [hep-ex]]

“Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy at the LHC”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1106**, 077 (2011) [arXiv:1104.3168 [hep-ex]]

“Charged particle transverse momentum spectra in pp collisions at $\sqrt{s} = 0.9$ and 7 TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1108**, 086 (2011) [arXiv:1104.3547 [hep-ex]]

“Measurement of the Polarization of W Bosons with Large Transverse Momenta in W+Jets Events at the LHC”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 021802 (2011) [arXiv:1104.3829 [hep-ex]]

“Long-range and short-range dihadron angular correlations in central PbPb collisions at a nucleon-nucleon center of mass energy of 2.76 TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1107**, 076 (2011) [arXiv:1105.2438 [nucl-ex]]

“Measurement of W-gamma and Z-gamma production in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **701**, 535 (2011) [arXiv:1105.2758 [hep-ex]]

“Search for supersymmetry in events with a lepton, a photon, and large missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1106**, 093 (2011) [arXiv:1105.3152 [hep-ex]]

“Suppression of Upsilon excited states in PbPb collisions at a nucleon-nucleon centre-of-mass energy of 2.76 TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 052302 (2011) [arXiv:1105.4894 [nucl-ex]]

“Search for First Generation Scalar Leptoquarks in the $e\nu jj$ channel in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **703**, 246 (2011) [arXiv:1105.5237 [hep-ex]]

“Measurement of the $t\bar{t}$ production cross section and the top quark mass in the dilepton channel in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1107**, 049 (2011) [arXiv:1105.5661 [hep-ex]]

“Measurement of the Inclusive Jet Cross Section in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 132001 (2011) [arXiv:1106.0208 [hep-ex]]

“Measurement of the Ratio of the 3-jet to 2-jet Cross Sections in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **702**, 336 (2011) [arXiv:1106.0647 [hep-ex]]

“Measurement of the Top-antitop Production Cross Section in pp Collisions at $\sqrt{s}=7$ TeV using the Kinematic Properties of Events with Leptons and Jets”

S. Chatrchyan *et al.* [CMS Collaboration]
Eur. Phys. J. C **71**, 1721 (2011) [arXiv:1106.0902 [hep-ex]]

“Search for Physics Beyond the Standard Model Using Multilepton Signatures in pp Collisions at $\sqrt{s}=7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **704**, 411 (2011) [arXiv:1106.0933 [hep-ex]]

“Search for Same-Sign Top-Quark Pair Production at $\sqrt{s} = 7$ TeV and Limits on Flavour Changing Neutral Currents in the Top Sector”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1108**, 005 (2011) [arXiv:1106.2142 [hep-ex]]

“Search for Light Resonances Decaying into Pairs of Muons as a Signal of New Physics”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1107**, 098 (2011) [arXiv:1106.2375 [hep-ex]]

“Measurement of the t-channel single top quark production cross section in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 091802 (2011) [arXiv:1106.3052 [hep-ex]]

“Search for Supersymmetry in Events with b Jets and Missing Transverse Momentum at the LHC”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1107**, 113 (2011) [arXiv:1106.3272 [hep-ex]]

“Measurement of the Strange B Meson Production Cross Section with J/Psi phi Decays in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. D **84**, 052008 (2011) [arXiv:1106.4048 [hep-ex]]

“Search for New Physics with Jets and Missing Transverse Momentum in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1108**, 155 (2011) [arXiv:1106.4503 [hep-ex]]

“Search for New Physics with a Mono-Jet and Missing Transverse Energy in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 201804 (2011) [arXiv:1106.4775 [hep-ex]]

“Missing transverse energy performance of the CMS detector”

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **6**, P09001 (2011) [arXiv:1106.5048 [physics.ins-det]]

“Measurement of the Underlying Event Activity at the LHC with $\sqrt{s}= 7$ TeV and Comparison with $\sqrt{s} = 0.9$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1109**, 109 (2011) [arXiv:1107.0330 [hep-ex]]

"Inclusive search for squarks and gluinos in pp collisions at $\sqrt{s} = 7$ TeV"

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. D **85**, 012004 (2012) [arXiv:1107.1279 [hep-ex]]

"A search for excited leptons in pp Collisions at $\sqrt{s} = 7$ TeV"

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **704**, 143 (2011) [arXiv:1107.1773 [hep-ex]]

"Search for supersymmetry in pp collisions at $\sqrt{s} = 7$ TeV in events with a single lepton, jets, and missing transverse momentum"

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1108**, 156 (2011) [arXiv:1107.1870 [hep-ex]]

"Search for Three-Jet Resonances in pp Collisions at $\sqrt{s} = 7$ TeV"

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 101801 (2011) [arXiv:1107.3084 [hep-ex]]

"Determination of Jet Energy Calibration and Transverse Momentum Resolution in CMS"

S. Chatrchyan *et al.* [CMS Collaboration]
JINST **6**, P11002 (2011) [arXiv:1107.4277 [physics.ins-det]]

"Search for Resonances in the Dijet Mass Spectrum from 7 TeV pp Collisions at CMS"

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **704**, 123 (2011) [arXiv:1107.4771 [hep-ex]]

"Measurement of the Inclusive W and Z Production Cross Sections in pp Collisions at $\sqrt{s} = 7$ TeV"

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1110**, 132 (2011) [arXiv:1107.4789 [hep-ex]]

"Dependence on pseudorapidity and centrality of charged hadron production in PbPb collisions at a nucleon-nucleon centre-of-mass energy of 2.76 TeV"

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1108**, 141 (2011) [arXiv:1107.4800 [nucl-ex]]

"Search for B(s) and B to dimuon decays in pp collisions at 7 TeV"

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 191802 (2011) [arXiv:1107.5834 [hep-ex]]

"Measurement of the Drell-Yan Cross Section in pp Collisions at $\sqrt{s} = 7$ TeV"

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1110**, 007 (2011) [arXiv:1108.0566 [hep-ex]]

"Measurement of the Differential Cross Section for Isolated Prompt Photon Production in pp Collisions at 7 TeV"

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. D **84**, 052011 (2011) [arXiv:1108.2044 [hep-ex]]

"Measurement of the t t-bar Production Cross Section in pp Collisions at 7 TeV in Lepton + Jets Events Using b-quark Jet Identification"

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. D **84**, 092004 (2011) [arXiv:1108.3773 [hep-ex]]

"Search for Supersymmetry at the LHC in Events with Jets and Missing Transverse Energy"

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 221804 (2011) [arXiv:1109.2352 [hep-ex]]

“Search for a Vector-like Quark with Charge $2/3$ in $t + Z$ Events from pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. Lett. **107**, 271802 (2011) [arXiv:1109.4985 [hep-ex]]

“Forward Energy Flow, Central Charged-Particle Multiplicities, and Pseudorapidity Gaps in W and Z Boson Events from pp Collisions at 7 TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Eur. Phys. J. C **72**, 1839 (2012) [arXiv:1110.0181 [hep-ex]]

“Measurement of energy flow at large pseudorapidities in pp collisions at $\sqrt{s} = 0.9$ and 7 TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1111**, 148 (2011) [Erratum-ibid. **1202**, 055 (2012)] [arXiv:1110.0211 [hep-ex]]

“Measurement of the weak mixing angle with the Drell-Yan process in proton-proton collisions at the LHC”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. D **84**, 112002 (2011) [arXiv:1110.2682 [hep-ex]]

“Jet Production Rates in Association with W and Z Bosons in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1201**, 010 (2012) [arXiv:1110.3226 [hep-ex]]

“Measurement of the Rapidity and Transverse Momentum Distributions of Z Bosons in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Rev. D **85**, 032002 (2012) [arXiv:1110.4973 [hep-ex]]

“Measurement of the Production Cross Section for Pairs of Isolated Photons in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1201**, 133 (2012) [arXiv:1110.6461 [hep-ex]]

“ J/ψ and $\psi(2S)$ production in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1202**, 011 (2012) [arXiv:1111.1557 [hep-ex]]

“Exclusive photon-photon production of muon pairs in proton-proton collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
JHEP **1201**, 052 (2012) [arXiv:1111.5536 [hep-ex]]

“Search for signatures of extra dimensions in the diphoton mass spectrum at the Large Hadron Collider”

S. Chatrchyan *et al.* [CMS Collaboration]
arXiv:1112.0688 [hep-ex]
FERMILAB-PUB-11-693-CMS(2011)

“Measurement of the charge asymmetry in top-quark pair production in proton-proton collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration]
Phys. Lett. B **709**, 28 (2012) [arXiv:1112.5100 [hep-ex]]

“Measurement of isolated photon production in pp and PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1201.3093 [nucl-ex]

10.1016/j.physletb.2012.02.077
 Phys. Lett. B **710**, 256 (2012)

“Centrality dependence of dihadron correlations and azimuthal anisotropy harmonics in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1201.3158 [nucl-ex]
 10.1140/epjc/s10052-012-2012-3
 Eur. Phys. J. C **72**, 2012 (2012)

“Suppression of non-prompt J/ψ , prompt J/ψ , and $Y(\alpha S)$ in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1201.5069 [nucl-ex]
 10.1007/JHEP05(2012)063
 JHEP **1205**, 063 (2012)

“Measurement of the inclusive production cross sections for forward jets and for dijet events with one forward and one central jet in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.0704 [hep-ex]
 10.1007/JHEP06(2012)036
 JHEP **1206**, 036 (2012)

“Search for a Higgs boson in the decay channel H to ZZ^* to $q \bar{q} \ell^- \ell^+$ in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.1416 [hep-ex]
 10.1007/JHEP04(2012)036
 JHEP **1204**, 036 (2012)

“Search for the standard model Higgs boson decaying into two photons in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.1487 [hep-ex]
 10.1016/j.physletb.2012.03.003
 Phys. Lett. B **710**, 403 (2012)

“Combined results of searches for the standard model Higgs boson in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.1488 [hep-ex]
 10.1016/j.physletb.2012.02.064
 Phys. Lett. B **710**, 26 (2012)

“Search for the standard model Higgs boson decaying to a W pair in the fully leptonic final state in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.1489 [hep-ex]
 10.1016/j.physletb.2012.02.076
 Phys. Lett. B **710**, 91 (2012)

“Search for the standard model Higgs boson in the decay channel H to ZZ to 4 leptons in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.1997 [hep-ex]

10.1103/PhysRevLett.108.111804
 Phys. Rev. Lett. **108**, 111804 (2012)

“Study of high-pT charged particle suppression in PbPb compared to pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.2554 [nucl-ex]
 10.1140/epjc/s10052-012-1945-x
 Eur. Phys. J. C **72**, 1945 (2012)

“Search for the standard model Higgs boson in the H to ZZ to $\ell\ell\tau\tau$ decay channel in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.3617 [hep-ex]
 10.1007/JHEP03(2012)081
 JHEP **1203**, 081 (2012)

“Search for the standard model Higgs boson in the H to ZZ to $2\ell 2\nu$ channel in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.3478 [hep-ex]
 10.1007/JHEP03(2012)040
 JHEP **1203**, 040 (2012)

“Search for large extra dimensions in dimuon and dielectron events in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.3827 [hep-ex]
 10.1016/j.physletb.2012.03.029
 Phys. Lett. B **711**, 15 (2012)

“Search for neutral Higgs bosons decaying to τ pairs in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.4083 [hep-ex]
 10.1016/j.physletb.2012.05.028
 Phys. Lett. B **713**, 68 (2012)

“Search for the standard model Higgs boson decaying to bottom quarks in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.4195 [hep-ex]
 10.1016/j.physletb.2012.02.085
 Phys. Lett. B **710**, 284 (2012)

“Inclusive b -jet production in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.4617 [hep-ex]
 10.1007/JHEP04(2012)084
 JHEP **1204**, 084 (2012)

“Jet momentum dependence of jet quenching in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1202.5022 [nucl-ex]
 10.1016/j.physletb.2012.04.058
 Phys. Lett. B **712**, 176 (2012)

“Search for quark compositeness in dijet angular distributions from pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1202.5535 [hep-ex]

10.1007/JHEP05(2012)055

JHEP **1205**, 055 (2012)**“Search for microscopic black holes in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1202.6396 [hep-ex]

10.1007/JHEP04(2012)061

JHEP **1204**, 061 (2012)**“Measurement of the cross section for production of bb^- bar X , decaying to muons in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1203.3458 [hep-ex]

10.1007/JHEP06(2012)110

JHEP **1206**, 110 (2012)**“Search for $B_s^0 \rightarrow \mu^+ \mu^-$ and $B^0 \rightarrow \mu^+ \mu^-$ decays”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1203.3976 [hep-ex]

10.1007/JHEP04(2012)033

JHEP **1204**, 033 (2012)**“Search for heavy, top-like quark pair production in the dilepton final state in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1203.5410 [hep-ex]

10.1016/j.physletb.2012.07.059

Phys. Lett. B **716**, 103 (2012)**“Measurement of the top quark pair production cross section in pp collisions at $\sqrt{s} = 7$ TeV in dilepton final states containing a τ ”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1203.6810 [hep-ex]

10.1103/PhysRevD.85.112007

Phys. Rev. D **85**, 112007 (2012)**“Ratios of dijet production cross sections as a function of the absolute difference in rapidity between jets in proton-proton collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.0696 [hep-ex]

10.1140/epjc/s10052-012-2216-6

Eur. Phys. J. C **72**, 2216 (2012)**“Search for Dark Matter and Large Extra Dimensions in pp Collisions Yielding a Photon and Missing Transverse Energy”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.0821 [hep-ex]

10.1103/PhysRevLett.108.261803

Phys. Rev. Lett. **108**, 261803 (2012)

“Search for heavy bottom-like quarks in 4.9 inverse femtobarns of pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.1088 [hep-ex]

10.1007/JHEP05(2012)123

JHEP **1205**, 123 (2012)**“Measurement of the underlying event in the Drell-Yan process in proton-proton collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.1411 [hep-ex]

10.1140/epjc/s10052-012-2080-4

Eur. Phys. J. C **72**, 2080 (2012)**“Measurement of the elliptic anisotropy of charged particles produced in PbPb collisions at nucleon-nucleon center-of-mass energy = 2.76 TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.1409 [nucl-ex]

“Measurement of the $Z/\gamma^* + b$ -jet cross section in pp collisions at 7 TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.1643 [hep-ex]

10.1007/JHEP06(2012)126

JHEP **1206**, 126 (2012)**“Azimuthal anisotropy of charged particles at high transverse momenta in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.1850 [nucl-ex]

10.1103/PhysRevLett.109.022301

Phys. Rev. Lett. **109**, 022301 (2012)**“Search for anomalous t \bar{t} production in the highly-boosted all-hadronic final state”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.2488 [hep-ex]

10.1007/JHEP09(2012)029

JHEP **1209**, 029 (2012)**“Measurement of the mass difference between top and antitop quarks”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.2807 [hep-ex]

10.1007/JHEP06(2012)109

JHEP **1206**, 109 (2012)**“Shape, transverse size, and charged hadron multiplicity of jets in pp collisions at 7 TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.3170 [hep-ex]

10.1007/JHEP06(2012)160

JHEP **1206**, 160 (2012)**“Search for physics beyond the standard model in events with a Z boson, jets, and missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.3774 [hep-ex]

10.1016/j.physletb.2012.08.026

Phys. Lett. B **716**, 260 (2012)

“Search for leptonic decays of W' bosons in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.4764 [hep-ex]

10.1007/JHEP08(2012)023

JHEP **1208**, 023 (2012)**“Search for anomalous production of multilepton events in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.5341 [hep-ex]

10.1007/JHEP06(2012)169

JHEP **1206**, 169 (2012)**“Observation of a new $\Xi(b)$ baryon”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.5955 [hep-ex]

10.1103/PhysRevLett.108.252002

Phys. Rev. Lett. **108**, 252002 (2012)**“Studies of jet quenching using isolated-photon+jet correlations in PbPb and pp collisions at $\sqrt{s}(s[NN]) = 2.76$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1205.0206 [nucl-ex]

“Search for heavy long-lived charged particles in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1205.0272 [hep-ex]

10.1016/j.physletb.2012.06.023

Phys. Lett. B **713**, 408 (2012)**“Measurement of the Λ_{cb} cross section and the $\bar{\Lambda}(b)$ to Λ_{cb} ratio with Λ_{cb} to J/Ψ Λ decays in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1205.0594 [hep-ex]

10.1016/j.physletb.2012.05.063

Phys. Lett. B **714**, 136 (2012)**“Measurement of the pseudorapidity and centrality dependence of the transverse energy density in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1205.2488 [nucl-ex]

10.1103/PhysRevLett.109.152303

Phys. Rev. Lett. **109**, 152303 (2012)**“Search for new physics in events with same-sign dileptons and b -tagged jets in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1205.3933 [hep-ex]

10.1007/JHEP08(2012)110

JHEP **1208**, 110 (2012)**“Search for a light charged Higgs boson in top quark decays in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1205.5736 [hep-ex]

10.1007/JHEP07(2012)143

JHEP **1207**, 143 (2012)

“Measurement of jet fragmentation into charged particles in pp and PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1205.5872 [nucl-ex]
 10.1007/JHEP10(2012)087
 JHEP **1210**, 087 (2012)

“Study of W boson production in PbPb and pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1205.6334 [nucl-ex]
 10.1016/j.physletb.2012.07.025
 Phys. Lett. B **715**, 66 (2012)

“Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1205.6615 [hep-ex]
 10.1103/PhysRevLett.109.071803
 Phys. Rev. Lett. **109**, 071803 (2012)

“Search for a W' or Techni- ρ Decaying into WZ in pp Collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1206.0433 [hep-ex]
 10.1103/PhysRevLett.109.141801
 Phys. Rev. Lett. **109**, 141801 (2012)

“Search for high mass resonances decaying into τ^- lepton pairs in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1206.1725 [hep-ex]
 10.1016/j.physletb.2012.07.062
 Phys. Lett. B **716**, 82 (2012)

“Search for narrow resonances in dilepton mass spectra in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1206.1849 [hep-ex]
 10.1016/j.physletb.2012.06.051
 Phys. Lett. B **714**, 158 (2012)

“Measurement of the electron charge asymmetry in inclusive W production in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1206.2598 [hep-ex]
 10.1103/PhysRevLett.109.111806
 Phys. Rev. Lett. **109**, 111806 (2012)

“Search for charge-asymmetric production of W' bosons in top pair + jet events from pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1206.3921 [hep-ex]
 10.1016/j.physletb.2012.09.048
 Phys. Lett. B **717**, 351 (2012)

“Search for new physics in events with opposite-sign leptons, jets, and missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1206.3949 [hep-ex]

“Performance of CMS muon reconstruction in pp collision events at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1206.4071 [physics.ins-det]
10.1088/1748-0221/7/10/P10002
JINST **7**, P10002 (2012)

“Search for dark matter and large extra dimensions in monojet events in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1206.5663 [hep-ex]
10.1007/JHEP09(2012)094
JHEP **1209**, 094 (2012)

“Search for a light pseudoscalar Higgs boson in the dimuon decay channel in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1206.6326 [hep-ex]
10.1103/PhysRevLett.109.121801
Phys. Rev. Lett. **109**, 121801 (2012)

“Inclusive and differential measurements of the $t\bar{t}$ charge asymmetry in proton-proton collisions at 7 TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1207.0065 [hep-ex]
10.1016/j.physletb.2012.09.028
Phys. Lett. B **717**, 129 (2012)

“Search for stopped long-lived particles produced in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1207.0106 [hep-ex]
10.1007/JHEP08(2012)026
JHEP **1208**, 026 (2012)

“Search for new physics with long-lived particles decaying to photons and missing energy in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1207.0627 [hep-ex]
10.1007/JHEP11(2012)172
JHEP **1211**, 172 (2012)

“Search for a fermiophobic Higgs boson in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1207.1130 [hep-ex]
10.1007/JHEP09(2012)111
JHEP **1209**, 111 (2012)

“Search for supersymmetry in hadronic final states using MT_2 in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1207.1798 [hep-ex]
10.1007/JHEP10(2012)018
JHEP **1210**, 018 (2012)

“Search for new physics in the multijet and missing transverse momentum final state in proton-proton collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1207.1898 [hep-ex]
 10.1103/PhysRevLett.109.171803
 Phys. Rev. Lett. **109**, 171803 (2012)

“Measurement of the underlying event activity in pp collisions at $\sqrt{s} = 0.9$ and 7 TeV with the novel jet-area/median approach”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1207.2392 [hep-ex]
 10.1007/JHEP08(2012)130
 JHEP **1208**, 130 (2012)

“A search for a doubly-charged Higgs boson in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1207.2666 [hep-ex]
 10.1140/epjc/s10052-012-2189-5
 Eur. Phys. J. C **72**, 2189 (2012)

“Forward-backward asymmetry of Drell-Yan lepton pairs in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1207.3973 [hep-ex]

“Study of the inclusive production of charged pions, kaons, and protons in pp collisions at $\sqrt{s} = 0.9, 2.76, \text{ and } 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1207.4724 [hep-ex]
 10.1140/epjc/s10052-012-2164-1
 Eur. Phys. J. C **72**, 2164 (2012)

“Search for pair production of first- and second-generation scalar leptoquarks in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1207.5406 [hep-ex]
 10.1103/PhysRevD.86.052013
 Phys. Rev. D **86**, 052013 (2012)

“Search for heavy Majorana neutrinos in $\mu^+\mu^+[\mu^-\mu^-]$ and $e^+e^+[e^-e^-]$ events in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1207.6079 [hep-ex]
 10.1016/j.physletb.2012.09.012
 Phys. Lett. B **717**, 109 (2012)

“Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1207.7235 [hep-ex]
 10.1016/j.physletb.2012.08.021
 Phys. Lett. B **716**, 30 (2012)

“Search for a W' boson decaying to a bottom quark and a top quark in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
 arXiv:1208.0956 [hep-ex]

“Search for flavor changing neutral currents in top quark decays in pp collisions at 7 TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1208.0957 [hep-ex]

“Measurement of the azimuthal anisotropy of neutral pions in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1208.2470 [nucl-ex]

Submitted to: Phys. Rev. Lett.

“Measurement of the $t\bar{t}$ production cross section in the dilepton channel in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1208.2671 [hep-ex]

10.1007/JHEP11(2012)067

JHEP **1211**, 067 (2012)**“Observation of sequential Upsilon suppression in PbPb collisions”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1208.2826 [nucl-ex]

“Search for three-jet resonances in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1208.2931 [hep-ex]

10.1016/j.physletb.2012.10.048

Phys. Lett. B **718**, 329 (2012)**“Study of the dijet mass spectrum in $pp \rightarrow W + \text{jets}$ events at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1208.3477 [hep-ex]

“Search for supersymmetry in events with b-quark jets and missing transverse energy in pp collisions at 7 TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1208.4859 [hep-ex]

10.1103/PhysRevD.86.072010

Phys. Rev. D **86**, 072010 (2012)**“Search for pair produced fourth-generation up-type quarks in pp collisions at $\sqrt{s} = 7$ TeV with a lepton in the final state”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1209.0471 [hep-ex]

10.1016/j.physletb.2012.10.038

Phys. Lett. B **718**, 307 (2012)**“Combined search for the quarks of a sequential fourth generation”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1209.1062 [hep-ex]

“Search for exclusive or semi-exclusive photon pair production and observation of exclusive and semi-exclusive electron pair production in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1209.1666 [hep-ex]

10.1007/JHEP11(2012)080

JHEP **1211**, 080 (2012)

“Observation of a diffractive contribution to dijet production in proton-proton collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.1805 [hep-ex]

“Measurement of the top-quark mass in $t\bar{t}$ events with lepton+jets final states in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.2319 [hep-ex]

“Measurement of the top-quark mass in $t\bar{t}$ events with dilepton final states in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.2393 [hep-ex]
10.1140/epjc/s10052-012-2202-z
Eur. Phys. J. C **72**, 2202 (2012)

“Measurement of the Y_{1S} , Y_{2S} and Y_{3S} polarizations in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.2922 [hep-ex]

“Evidence for associated production of a single top quark and W boson in pp collisions at 7 TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.3489 [hep-ex]
Submitted to: Phys.Rev.Lett.

“Search for a narrow spin-2 resonance decaying to a pair of Z vector bosons in the semileptonic final state”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.3807 [hep-ex]

“Search for the standard model Higgs boson produced in association with W and Z bosons in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.3937 [hep-ex]
10.1007/JHEP11(2012)088
JHEP **1211**, 088 (2012)

“Search for resonant $t\bar{t}$ production in lepton+jets events in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.4397 [hep-ex]
10.1007/JHEP12(2012)015
JHEP **1212**, 015 (2012)

“Measurement of the single-top-quark t -channel cross section in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.4533 [hep-ex]
10.1007/JHEP12(2012)035
JHEP **1212**, 035 (2012)

“Search for electroweak production of charginos and neutralinos using leptonic final states in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1209.6620 [hep-ex]

10.1007/JHEP11(2012)147
JHEP **1211**, 147 (2012)

“Search for anomalous production of highly boosted Z bosons decaying to dimuons in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.0867 [hep-ex]

“Measurement of the relative prompt production rate of $\chi(c_2)$ and $\chi(c_1)$ in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.0875 [hep-ex]
Submitted to: Eur.Phys.Jour.

“Search for heavy lepton partners of neutrinos in proton-proton collisions in the context of the type III seesaw mechanism”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.1797 [hep-ex]
10.1016/j.physletb.2012.10.070
Phys. Lett. B **718**, 348 (2012)

“Search for supersymmetry in events with photons and low missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.2052 [hep-ex]
Submitted to: Phys. Lett. B.

“Search for fractionally charged particles in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.2311 [hep-ex]
Submitted to: Phys. Rev. Lett.

“Search for narrow resonances and quantum black holes in inclusive and b -tagged dijet mass spectra from pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.2387 [hep-ex]

“Search for heavy neutrinos and W bosons with right-handed couplings in a left-right symmetric model in pp collisions at 7 TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.2402 [hep-ex]
Submitted to: Phys. Rev. Lett.

“Search for excited leptons in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.2422 [hep-ex]

“Observation of Z decays to four leptons with the CMS detector at the LHC”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1210.3844 [hep-ex]
10.1007/JHEP12(2012)034
JHEP **1212**, 034 (2012)

“Observation of long-range near-side angular correlations in proton-lead collisions at the LHC”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1210.5482 [nucl-ex]

Submitted to: Physics Letters B

“Search for third-generation leptoquarks and scalar bottom quarks in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1210.5627 [hep-ex]

10.1007/JHEP12(2012)055

JHEP **1212**, 055 (2012)**“Search for pair production of third-generation leptoquarks and top squarks in pp collisions at $\sqrt{s} = 7$ TeV”**S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1210.5629 [hep-ex]

“Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1210.6718 [hep-ex]

“Search for heavy quarks decaying into a top quark and a W or Z boson using lepton + jets events in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1210.7471 [hep-ex]

“Measurement of the sum of WW and WZ production with W +dijet events in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1210.7544 [hep-ex]

“Search for a non-standard-model Higgs boson decaying to a pair of new light bosons in four-muon final states”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1210.7619 [hep-ex]

“Search for supersymmetry in final states with missing transverse energy and 0, 1, 2, or at least 3 b -quark jets in 7 TeV pp collisions using the variable α_T ”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1210.8115 [hep-ex]

“Measurement of differential top-quark pair production cross sections in pp collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1211.2220 [hep-ex]

“Search in leptonic channels for heavy resonances decaying to long-lived neutral particles”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1211.2472 [hep-ex]

“Search for supersymmetry in final states with a single lepton, b -quark jets, and missing transverse energy in proton-proton collisions at $\sqrt{s} = 7$ TeV”S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1211.3143 [hep-ex]

“Search for Z' resonances decaying to $t\bar{t}$ in dilepton+jets final states in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1211.3338 [hep-ex]

“Identification of b-quark jets with the CMS experiment”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1211.4462 [hep-ex]

“Search for new physics in events with photons, jets, and missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1211.4784 [hep-ex]

“Measurement of the ZZ production cross section and search for anomalous couplings in $2l2l'$ final states in pp collisions at $\sqrt{s}=7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1211.4890 [hep-ex]

“Search for exotic resonances decaying into WZ/ZZ in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1211.5779 [hep-ex]

“Search for long-lived particles decaying to photons and missing energy in proton-proton collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1212.1838 [hep-ex]

“Search for heavy resonances in the W/Z-tagged dijet mass spectrum in pp collisions at 7 TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1212.1910 [hep-ex]

“Search for contact interactions in opposite-sign dimuon events in pp collisions at $\sqrt{s} = 7$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1212.4563 [hep-ex]

“Search for heavy narrow dilepton resonances in pp collisions at $\sqrt{s} = 7$ TeV and $\sqrt{s} = 8$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1212.6175 [hep-ex]

“Search for new physics in events with same-sign dileptons and b jets in pp collisions at $\sqrt{s} = 8$ TeV”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1212.6194 [hep-ex]

“Measurement of the $t\bar{t}$ production cross section in pp collisions at $\sqrt{s} = 7$ TeV with lepton + jets final states”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1212.6682 [hep-ex]

“Measurements of differential jet cross sections in proton-proton collisions at $\sqrt{s}=7$ TeV with the CMS detector”

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1212.6660 [hep-ex]

“On the mass and spin-parity of the Higgs boson candidate via its decays to Z boson pairs”

S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1212.6639 [hep-ex]

“Search for supersymmetry in pp collisions at $\sqrt{s} = 7$ TeV in events with a single lepton, jets, and missing transverse momentum”

S. Chatrchyan *et al.* [The CMS Collaboration].

arXiv:1212.6428 [hep-ex]

Last updated: January 8, 2013

http://www.pha.jhu.edu/~morris/cv_2012.pdf