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Department of Radiation Oncology
Case Western Reserve University
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EDUCATION:

Degrees: University of California, Davis Radiation Physics Post Doctoral 2003-2005

Indiana University	High Energy Physics	Ph.D. (2003)
Chinese Academy of Science	High Energy Physics	M.S. (1997)
U. of Sci & Tech of China	Information Science	B.S. (1992)

Certifications:

Certified in Therapeutic Radiological Physics ABR 2008

EXPERIENCE:

<u>Employer</u>	<u>Position</u>	<u>Duties</u>	<u>Dates</u>
Case Western Reserve University UHHS, Radiation Oncology	Asst Professor	medical physicist	2005-present
Chinese Academy of Science Inst. of High Energy Physics	Engineer	particle physicist	1992-1997

Teaching/ mentoring: Resident lecture teaching 2005-2012

HONORS, AWARDS and Leadership:

Society of Sigma Xi

PROFESSIONAL SOCIETIES:

American Association of Physicists in Medicine
American Society for Therapeutic Radiology & Oncology

PUBLICATIONS:

1. "Study of the P-wave charmonium state χ_{cJ} in $\psi(2S)$ decays". BES Collaboration, J.Z. Bai et al., **C.H. Luo**. Phys.Rev.Lett.**81** 3091-3095 (1998).
2. "Determination of the J/psi Leptonic Branching Fraction via $\psi(2S) \rightarrow \pi^+ \pi^- J/\psi$ ". BES Collaboration, J.Z. Bai et al., **C.H. Luo**. Phys.Rev. D **58**:092006 (1998).
3. "Branching Fractions for $\psi(2S)$ to $\gamma\eta'$ and $\gamma\eta$ ". BES Collaboration, J.Z. Bai et al., **C.H. Luo**. Phys.Rev. D **58**:097101 (1998)
4. "Differential Cross Section for W Boson Production as a function of Transverse Momentum in $p\bar{p}$ Collisions at $\sqrt{s}=1.8$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C. Luo**. Phys. Lett. B **513**, 292 (2001).

5. "Inclusive jet production in $p\bar{p}$ collisions". D0 Collaboration, B. Abbott, *et al*, **C. Luo**. Phys. Rev. Lett. **86**, 1707 (2001).
6. "A Quasi-Model-Independent Search for New High p_T Physics at DZero". D0 Collaboration, B. Abbott, *et al.*, **C.Luo**. Phys. Rev. Lett. **86**, 3712 (2001);
7. "A Quasi-Model Independent Search for New Physics at Large Transverse Momentum". D0 Collaboration, B. Abbott, *et al*, **C. Luo**. Phys. Rev. D **64**, 012004 (2001).
8. "High- p_T Jets in $p\bar{p}$ Collisions at $\sqrt{s}=630$ and 1800 GeV". D0 Collaboration, B. Abbott, *et al*, **C.Luo**. Phys. Rev. D **64**: 032003 (2001).
9. "Search for Heavy Particles Decaying into Electron-Positron Pairs in $p\bar{p}$ Collisions". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. Lett. **87**: 061802 (2001).
10. "Direct Search for Charged Higgs Bosons in Decays of Top Quarks". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. Lett. **88**, 151803 (2002).
11. "Search for First-Generation Scalar and Vector Leptoquarks". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. D **64**, 092004 (2001).
12. "Search for New Physics Using QUAERO: A General Interface to DZero Data". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. Lett. **87**, 012004 (2001).
13. "Search for Single Top Production at DZero Using Neural Networks". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Lett. B **517**, 282 (2001).
14. "Measurement of the ratio of differential cross sections for W and Z boson production as a function of transverse momentum". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Lett. B. **517**, 299 (2001).
15. "A search for the scalar top quark in $p\bar{p}$ collisions at $\sqrt{s}=1.8$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. Lett. **88**, 171802 (2002).
16. "The ratio of isolated photon cross sections in $p\bar{p}$ collisions at $\sqrt{s}=630$ and 1800 GeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. Lett. **87**, 251805 (2001).
17. "Subjet multiplicity of gluon and quark jets reconstructed using the k_T algorithm in $p\bar{p}$ collisions". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. D **65**, 052008 (2002).
18. "The inclusive jet cross section in $p\bar{p}$ collisions at $\sqrt{s}=1.8$ TeV using the k_T algorithm". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Lett. B **525**, 211 (2002).
19. "Search for R-parity Violating Supersymmetry in Dimuon and Four-Jets Channel". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. Lett. **89**, 171801 (2002).
20. "Search for Leptoquark Pairs Decaying to $\nu\nu+$ jets in $p\bar{p}$ Collisions at $\sqrt{s}=1.8$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. Lett. **88**, 191801 (2002).
21. "A direct measurement of the W boson width". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. D **66**, 032008 (2002).
22. "Improved W boson mass measurement with the DØ detector". D0 Collaboration,

- V.M. Abazov, *et al*, **C.Luo**. Phys. Rev. D **66**, 012001 (2002).
23. "Search for mSUGRA in single electron events with jets and large missing transverse energy in $p\bar{p}$ collisions at $\sqrt{s}=1.8$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev. D **66**, 112001 (2002).
 24. " $t\bar{t}$ production cross section in $p\bar{p}$ collisions at $\sqrt{s}=1.8$ TeV". D0 Collaboration, V.M. Abazov, *et al.*, **C.Luo**. Phys.Rev. D **67**, 012004 (2003).
 25. "Multiple jet production at low transverse energies in $p\bar{p}$ collisions at $\sqrt{s}=1.8$ TeV". D0 Collaboration, V.M. Abazov, *et al.*, **C.Luo**. Phys.Rev. D **67**, 052001 (2003)
 26. "Search for the Production of Single Sleptons through R-parity Violation in $p\bar{p}$ Collisions at $\sqrt{s}=1.8$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev.Lett. **89**, 261801 (2002).
 27. "Search for Large Extra Dimensions in the Monojet + Missing ET Channel at D0". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev.Lett. **90** 251802 (2003).
 28. "Observation of Diffractively Produced W and Z Bosons in $p\bar{p}$ Collisions at $\sqrt{s} = 1800$ GeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Lett. B **574** 169-179 (2003).
 29. "Search for Doubly-charged Higgs Boson Pair Production in the Decay to $\mu^+\mu^+\mu^-\mu^-$ in $p\bar{p}$ Collisions at $\sqrt{s}=1.96$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev.Lett. **93** 141801 (2004).
 30. "Search for Pair Production of Light Scalar Top Quarks in $p\bar{p}$ Collisions at $\sqrt{s}=1.8$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev.Lett. **93** 011801 (2004).
 31. "Observation and Properties of the X(3872) Decaying to $J/\psi \pi^+ \pi^-$ in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev.Lett. **93** 162002 (2004).
 32. "Helicity of the W Boson in Lepton+Jets $t\bar{t}$ Events". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Lett. B **617** 1-10 (2005).
 33. "A Precision Measurement of the Mass of the Top Quark". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Nature **429** 638-642 (2004).
 34. "Search for Supersymmetry with Gauge-Mediated Breaking in Diphoton Events at D0". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev.Lett. **94** 041801 (2005).
 35. "Measurement of Dijet Azimuthal Decorrelations at Central Rapidities in pp Collisions at $\sqrt{s}=1.96$ TeV". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev.Lett. **94** 221801 (2005).
 36. "Measurement of the B_s lifetime in the exclusive decay channel $B_s \rightarrow J/\psi \phi$ ". D0 Collaboration, V.M. Abazov, *et al*, **C.Luo**. Phys.Rev.Lett. **94** 042001 (2005).
 37. "Use of benchmark Dose-Volume Histograms for selection of the optimal technique between three-dimensional conformal radiation therapy and intensity-modulated radiation therapy in prostate cancer". **C. Luo**, C. Yang, *et al*. International J. of Rad. Onc. Bio. and Phy., Vol. 66, No.4, pp1253-1262, 20