

Yurii Maravin

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Professional preparation

- Southern Methodist University (Dallas, TX), Physics, Ph.D., 2002
- Moscow Institute of Physics and Technology (Moscow, Russia), Physics, B.Sc., 1995

Awards

- CMS Fellow, 2013.
- LHC Physics Center guest, FNAL, Spring 2012.
- US DOE Outstanding Junior Investigator award, 2008.

Grants

- 2008 – 2013 FNAL "Coordination of the US CMS Research effort at the LHC Physics Center", PI
- 2007 – 2012 FNAL "Pixels M&O Subsystem", co-PI
- 2007 – 2008 US DOE & NSF "Electromagnetic calorimeter M&O Subsystem", PI
- 2007 – 2008 US DOE "The path to discoveries with the CMS ECAL Detector", PI
- 2006 – 2013 US DOE "Heavy quark and neutrino physics", co-PI

Appointments

- 2010 – current: Associate professor, Kansas State University, Manhattan, KS
- 2011 – current: Visiting professor, Abastumani Astrophysical Observatory, Ilia State University, Tbilisi, Georgia
- 2005 – 2010: Assistant professor, Kansas State University, Manhattan, KS
- 2002 – 2005: Postdoctoral Research Associate, FNAL, Batavia, IL
- 1995 – 2002: Research Assistant, Southern Methodist University, Dallas, TX

Leadership positions

- 2012 – current: KSU CMS team leader
- 2011 – current: CMS electron/photon physics object group convener
- 2011 – current: CMS Data Analysis School facilitator
- 2010 – 2012: Convener of the CMS $W\gamma$ and $Z\gamma$ analyses group
- 2008 – 2011: CMS ECAL clustering and energy correction convener
- 2008 – 2010: LHC Physics Center dilepton physics group convener
- 2003 – 2006: $D\bar{D}$ photon identification convener

Organization of workshops

- 2013: Anomalous quartic gauge coupling workshop, Dresden.
- 2013: Electron/photon global event description workshop, Paris.
- 2009: Diboson physics workshop, FNAL, Batavia IL
- 2009: CMS cosmic data run analysis workshop, FNAL, Batavia IL

Selected recent publications with primary contributions

1. S. Chatrchyan *et al.*, “Measurement of $Z\gamma \rightarrow \nu\nu\gamma$ production cross section and limits on anomalous $ZZ\gamma$ and $Z\gamma\gamma$ couplings in pp collisions at $\sqrt{s} = 7$ TeV,” to be submitted to J. High Energy Phys.
2. S. Chatrchyan *et al.*, “Measurement of $W\gamma$ and $Z\gamma$ cross sections and limits on anomalous triple gauge couplings in pp collisions,” to be submitted to Phys. Rev. D.
3. S. Chatrchyan *et al.*, “Search for excited leptons in pp collisions at $\sqrt{s} = 7$ TeV,” submitted to Phys. Lett. **B**.
4. S. Chatrchyan *et al.*, “Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC,” Phys. Lett. **B716** (2012) 30-61.
5. S. Chatrchyan *et al.*, “Search for pair production of first- and second-generation scalar leptoquarks at $\sqrt{s} = 7$ TeV with the CMS detector,” Phys. Rev. **D86** (2012) 052013.
6. S. Chatrchyan *et al.*, “Search for a W' or Techni- ρ decaying into WZ in pp collisions at $\sqrt{s} = 7$ TeV,” Phys. Rev. Lett. **109** (2012) 141801.
7. S. Chatrchyan *et al.*, “Search for dark matter and large extra dimensions in pp collisions yielding a photon and missing transverse energy,” Phys. Rev. Lett. **108** (2012) 261803.

8. S. Chatrchyan *et al.*, “Search for excited leptons in pp collisions at $\sqrt{s} = 7$ TeV,” Phys. Lett. **B704** (2011) 143-162.
9. J.R. Anderson *et al.*, “Discovering Technicolor,” European Phys. Journal Plus. **126** (2011) 9-81.
10. S. Chatrchyan *et al.*, “Search for supersymmetry in events with a lepton, a photon, and large missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV,” J. High Energy Phys. **1106** (2011) 093.
11. S. Chatrchyan *et al.*, “Measurement of $W\gamma$ and $Z\gamma$ production in pp collisions at $\sqrt{s} = 7$ TeV,” Phys. Lett. **B701** (2011) 535-555.
12. S. Chatrchyan *et al.*, “Measurement of W^+W^- production and search for the Higgs boson in pp collisions at $\sqrt{s} = 7$ TeV,” Phys. Lett. **B699** (2011) 25-47.
13. V. M. Abazov *et al.*, “Search for flavor-changing neutral current in $t\bar{t}$ production in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV ,” Phys. Lett. **B701** (2011) 313-320.
14. V. M. Abazov *et al.*, “Search for resonant WW and WZ production in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV ,” Phys. Rev. Lett. **107** (2011) 011801.
15. V. M. Abazov *et al.*, “Measurement of the WZ cross section and WWZ coupling in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV ,” Phys. Lett. **B695** (2011) 67.
16. V. M. Abazov *et al.*, “Search for a resonance decaying into WZ boson pairs in $p\bar{p}$ collisions,” Phys. Rev. Lett. **104** (2010) 061801.
17. V. M. Abazov *et al.*, “Search for dark photons from supersymmetric hidden valleys,” Phys. Rev. Lett. **103** (2009) 081802.
18. V. M. Abazov *et al.*, “Measurement of the $Z\gamma \rightarrow \nu\bar{\nu}\gamma$ cross section and limits on anomalous $ZZ\gamma$ and $Z\gamma\gamma$ couplings in $p\bar{p}$ at $\sqrt{s} = 1.96$ TeV ,” Phys. Rev. Lett. **102** (2009) 201802.
19. V. M. Abazov *et al.*, “Search for large extra dimensions via single photon plus missing energy final states at $\sqrt{s} = 1.96$ TeV ,” Phys. Rev. Lett. **101** (2008) 011601.
20. V. M. Abazov *et al.*, “Search for long-lived particles decaying into electron or photon pairs with the D0 detector,” Phys. Rev. Lett. **101** (2008) 111802.
21. V. M. Abazov *et al.*, “Search for supersymmetry in di-photon final states at $\sqrt{s} = 1.96$ TeV ,” Phys. Lett. **B659** (2008) 856.
22. V. M. Abazov *et al.*, “ $Z\gamma$ production and limits on anomalous $ZZ\gamma$ and $Z\gamma\gamma$ couplings in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV ,” Phys. Lett. **B653** (2007) 378-386.
23. V. M. Abazov *et al.*, “Search for particles decaying to a Z boson and a photon in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV ,” Phys. Lett. **B641** (2006) 415.

24. V. M. Abazov *et al.*, “Study of $Z\gamma$ events and limits on anomalous $ZZ\gamma$ and $Z\gamma\gamma$ couplings in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV ,” Phys. Rev. Lett. **95** (2005) 051802.

Recent cosmology publications

1. T. Kahniashvili, Y. Maravin, G. Lavrelashvili, and A. Kosowsky, “Primordial magnetic helicity constraints from WMAP seven-years data,” paper in preparation.
2. T. Kahniashvili, Y. Maravin, A. Natarajan, N. Battaglia, and A. Tevzadze, “Constraining primordial magnetic fields through large scale structure,” submitted to Astrophys. J., arXiv:1211.2769.
3. T. Kahniashvili, Y. Maravin, and A. Kosowsky, “Faraday rotation limits on a primordial magnetic field from Wilkinson Microwave Anisotropy Probe five-year data,” Phys. Rev. **D80** (2009) 023009.
4. T. Kahniashvili, R. Durrer, and Y. Maravin, “Testing Lorentz invariance violation with Wilkinson Microwave Anisotropy Probe five year data,” Phys. Rev. **D78** (2008) 123009.
5. T. Kahniashvili, L. Campanelli, G. Gogoberidze, Y. Maravin, and B. Ratra, “Gravitational radiation from primordial helical inverse cascade magnetohydrodynamic turbulence,” Phys. Rev. **D78** (2008) 123006, erratum-ibid **D79** (2009) 109901.
6. T. Kahniashvili, A. Kosowsky, G. Gogoberidze, and Y. Maravin, “Detectability of gravitational waves from phase transitions,” Phys. Rev. **D78** (2008) 043003.

Recent presentations and lectures

1. “W/Z + gamma cross sections,” SM@LHC 2013 conference, April 2013.
2. “Recent results from CMS,” Wine & Cheese seminar at FNAL, March 2013.
3. “Study of $W\gamma$ and $Z\gamma$ production at CMS,” Physics at LHC-2012 conference, Vancouver, Canada, June 2012.
4. “Triple gauge couplings at Tevatron,” 22nd Rencontres de Blois conference on Particle Physics and Cosmology, July 2010.
5. “Searches for new phenomena at CDF and DØ,” Phenomenology symposium PHENO09, May 2009.
6. “Observation of the $Z\gamma \rightarrow \nu\nu\gamma$ final state at DØ,” Wine & Cheese seminar at FNAL, February 2009.
7. “Search for Higgs at Tevatron,” colloquium at RBI, Zagreb, Croatia, July 2008.
8. “Measurements and searches in $W/Z+\gamma$ production,” 16th international workshop on deep inelastic scattering DIS08, April 2008.

9. "Searches for gauge mediated SUSY and R-parity violating SUSY," DIS08, April 2008.
10. "Diboson physics at the Tevatron," invited talk at DIS07, April 2007.
11. "Search for single top quark production at the Tevatron," particles and nuclei international conference PANIC05, October 2005.