

# Yurii Maravin

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## Awards

- Outstanding Junior Investigator DOE award, “The path to Discoveries with the CMS ECAL Detector,” 2008.

## Professional preparation

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

## Appointments

- June 2005 - present: Assistant professor, Department of Physics, Kansas State University, Manhattan, KS
- May 2002 - May 2005: Postdoctoral Research Associate, Fermi National Accelerator Laboratory, Batavia, IL
- September 1995 - May 2002: Research Assistant, Southern Methodist University, Dallas, TX

## Leadership positions

- 2009-current US LHC User Organization Executive Committee ex-officio member
- 2008-current CERN CMS ECAL clustering and energy correction convener
- 2008-current LHC Physics Center dilepton physics group convener
- 2003-2006  $D\bar{O}$  photon identification convener

## Selected recent $D\bar{O}$ publications with primary contributions

1. 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 ,” to be submitted to Phys. Rev. Lett.
2. V. M. Abazov *et al.*, “Search for  $W' \rightarrow WZ$  production in  $D\bar{O}$ ,” to be submitted to Phys. Lett. B.
3. V. M. Abazov *et al.*, “Search for dark photons from supersymmetric hidden valleys,” submitted to Phys. Rev. Lett., arXiv:0905.1478
4. 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**, 201802 (2009)

5. 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**, 011601 (2008)
6. V. M. Abazov *et al.*, “Search for long-lived particles decaying into electron or photon pairs with the D0 detector,” Phys. Rev. Lett. **101**, 111802 (2008)
7. V. M. Abazov *et al.*, “Search for supersymmetry in di-photon final states at  $\sqrt{s} = 1.96$  TeV ,” Phys. Lett. **B659**, 856 (2008)
8. 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**, 378-386 (2007)
9. 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**, 415 (2006)
10. 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**, 051802 (2005)

### Selected cosmology publications

1. T. Kahniashvili, A. Kosowsky, and Y. Maravin, “Faraday rotation limits on a primordial magnetic field from Wilkinson Microwave Anisotropy Probe five-year data,” accepted in Phys. Rev. **D**.
2. T. Kahniashvili, R. Durrer, and Y. Maravin, “Testing Lorentz invariance violation with Wilkinson Microwave Anisotropy Probe five year data,” Phys. Rev. **D78**, 123009 (2008).
3. T. Kahniashvili, L. Campanelli, G. Gogoberidze, Y. Maravin, and B. Ratra, “Gravitational radiation from primordial helical inverse cascade magnetohydrodynamic turbulence,” Phys. Rev. **D78**, 123006 (2008).
4. T. Kahniashvili, A. Kosowsky, G. Gogoberidze, and Y. Maravin, “Detectability of gravitational waves from phase transitions,” Phys. Rev. **D78**, 043003 (2008).

### Recent CMS notes

1. N. Adam *et. al.*, “Search for Technicolor with the CMS Experiment,” CMS AN-2009/099.
2. D. Bandurin *et. al.*, “A Baseline candidate single electron HLT path for LHC startup,” CMS AN-2009/021.
3. S. Beauceron *et. al.*, “Measurement of the WZ cross section at the LHC,” CMS AN-2008/051.
4. D. Evans, *et. al.*, “Search for high mass resonance production decaying into an electron pair in the CMS experiment,” CMS AN-2008/048.
5. S. Beauceron *et. al.*, “Study of electron identification in  $WZ \rightarrow \ell\ell\nu$  events,” CMS AN-2008/047.
6. D. Bandurin, V. Halyo, Y. Maravin, D. Marlow, J. Werner, “Dielectron fake rate estimates for HEEP analyses using the generator-level preselection of QCD electromagnetic jets,” CMS AN-2008/028.

7. D. Bandurin, V. Halyo, Y. Maravin, D. Marlow, J. Werner, “Generator-level preselection of QCD electromagnetic jets for HEEP analyses,” CMS AN-2008/023.
8. E. James, Y. Maravin, M. Mulders, and N. Neumeister, “Muon identification in CMS,” CERN-CMS-NOTE-2006-010, Jan (2006) and CERN-CMS-NOTE-2005-047 (2005).

### **Recent presentations and lectures**

1. “Searches for new phenomena at CDF and DØ,” invited talk at Phenomenology symposium PHENO09, May 2009
2. “Observation of the  $Z\gamma \rightarrow \nu\nu\gamma$  final state at DØ,” Wine & Cheese seminar at FNAL, February 2009
3. “Search for Higgs at Tevatron,” colloquium at RBI, Zagreb, Croatia, July 2008
4. “Measurements and searches in  $W/Z + \gamma$  production,” invited talk at the 16th international workshop on deep inelastic scattering DIS08, April 2008
5. “Searches for gauge mediated SUSY and R-parity violating SUSY,” invited talk DIS08, April 2008
6. “Diboson physics at the Tevatron,” invited talk at DIS07, April 2007
7. “Search for single top quark production at the Tevatron,” invited talk at the particles and nuclei international conference PANIC05, October 2005

### **Recent presentations and lectures**

1. Reviewer for Phys. Rev. Lett., Phys. Rev. D, and IEEE Transactions on Nuclear Science journals
2. Member of the Kansas State physics department graduate student, qualifying exam, and safety committees
3. Organizer of various workshops at LHC Physics Center at FNAL dedicated to preparation for data analysis at LHC