

Andrei Gritsan

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Professional Appointments

Johns Hopkins University, Physics and Astronomy Department, Baltimore, MD,
Associate Professor, 2012 – present,
Assistant Professor, 2005 – 2012.

Lawrence Berkeley National Laboratory, Physics Division, Berkeley, CA,
Postdoctoral Fellow, 2000 – 2005.

University of Colorado at Boulder, Physics Department, Boulder, CO,
Research Assistant, 1996 – 2000.

Budker Institute for Nuclear Physics, Novosibirsk, Russia,
Research Assistant, 1993 – 1996.

Professional Affiliations

CERN – European Organization for Nuclear Research, Geneva, Switzerland,
Visiting Scientist, CMS experiment at LHC, 2006 – present.

FNAL – Fermi National Accelerator Laboratory, Batavia, IL,
LHC Physics Center Research Fellow, 2012–2013,
Visiting Scientist, LHC Physics Center, 2005 – present.

SLAC National Accelerator Laboratory, Stanford University, Palo Alto, CA,
Visiting Fellow, *BABAR* experiment at PEP-II, 2000 – 2005.

Wilson Synchrotron Laboratory, Cornell University, Ithaca, NY,
Visiting Scholar, CLEO experiment at CESR, 1996 – 2000.

Education

University of Colorado at Boulder, Boulder, CO, 1996 – 2000,
Ph.D. in Physics, Particle Physics, G.P.A. 4.0/4.0, August 2000.

Novosibirsk State University, Novosibirsk, Russia, 1990 – 1996,
M.S. (B.S.) in Physics, Particle Physics, G.P.A. 5.0/5.0, June 1996 (1994)

Recent Awards and Fellowships

- US DOE/NSF LHC Physics Center at Fermilab Distinguished Researcher, 2013.
- US NSF CAREER Award, 2007.
- Alfred P. Sloan Foundation Research Fellow, 2007.

Scientific Publications

More than a thousand papers in several collaborations according to inSPIRE online database (<http://inspirehep.net/author/A.V.Gritsan.1/>). Below some of the highlighted journal papers are listed with the most direct impact by A. Gritsan and his team.

Search and discovery of the Higgs boson on CMS at LHC and study of its properties

45. "Limits on the Higgs boson lifetime and width from its decay to four charged leptons," CMS Collaboration, Phys. Rev. D **92** 072010 (2015).
44. "Constraints on the spin-parity and anomalous HVV couplings of the Higgs boson in proton collisions at 7 and 8 TeV," CMS Collaboration, Phys. Rev. D **92** 012004 (2015).
43. "Search for a Higgs boson in the mass range from 145 to 1000 GeV decaying to a pair of W or Z bosons," CMS Collaboration, Journal of High Energy Physics (JHEP) **10**, 144 (2015).
42. "Constraints on the Higgs boson width from off-shell production and decay to Z-boson pairs," CMS Collaboration, Phys. Lett. B **736**, 64 (2014).
41. "Measurement of the properties of a Higgs boson in the four-lepton final state," CMS Collaboration, Phys. Rev. D **89**, 092007 (2014).
40. "Study of the Mass and Spin-Parity of the Higgs Boson Candidate via Its Decays to Z Boson Pairs," CMS Collaboration, Phys. Rev. Lett. **110**, 081803 (2013).
39. "Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC," CMS Collaboration, Phys. Lett. B **716**, 30 (2012).
38. "Search for a narrow spin-2 resonance decaying to a pair of Z vector bosons in the semileptonic final state," CMS Collaboration, Phys. Lett. B **718**, 1208 (2013).
37. "Search for a Higgs boson in the decay channel $H \rightarrow ZZ^{(*)} \rightarrow q\bar{q}\ell^-\ell^+$ in pp collisions at $\sqrt{s} = 7$ TeV," CMS Collaboration, Journal of High Energy Physics (JHEP) **04**, 036 (2012).
36. "Search for a standard model Higgs boson in the decay channel $H \rightarrow ZZ^{(*)} \rightarrow 4\ell$ in pp collisions at $\sqrt{s} = 7$ TeV," CMS Collaboration, Phys. Rev. Lett. **108**, 111804 (2012) .
35. "Combined results of searches for the standard model Higgs boson in pp collisions at $\sqrt{s} = 7$ TeV," CMS Collaboration, Phys. Lett. B **710**, 26 (2012).

Precision Electroweak measurements

34. "Measurement of the weak mixing angle with the Drell–Yan process in proton-proton collisions at the LHC," CMS Collaboration, Phys. Rev. D **84**, 112002 (2011).

Phenomenological studies

33. “Constraining anomalous HVV interactions at proton and lepton colliders,” I. Anderson, S. Bolognesi, F. Caola, Y. Gao, A. V. Gritsan, C. B. Martin, K. Melnikov and M. Schulze, A. Whitbeck, and Y. Zhou, *Phys. Rev. D* **89**, 035007 (2014).
32. “Higgs Working Group Report of the Snowmass 2013 Community Planning Study,” S. Dawson, A. Gritsan, H. Logan, J. Qian, C. Tully, R. Van Kooten *et al.*, arXiv.org/abs/1310.8361.
31. “Handbook of LHC Higgs Cross Sections 3: Higgs Properties,” LHC Higgs Cross Section Working Group Collaboration, arXiv.org/abs/1307.1347.
30. “On the spin and parity of a single-produced resonance at the LHC,” S. Bolognesi, Y. Gao, A. V. Gritsan, K. Melnikov, M. Schulze, N. V. Tran, A. Whitbeck, *Phys. Rev. D* **86**, 095031 (2012).
29. “Spin determination of single-produced resonances at hadron colliders,” Y. Gao, A. V. Gritsan, Z. Guo, K. Melnikov, M. Schulze, N. V. Tran, *Phys. Rev. D* **81**, 075022 (2010).
28. “Study of Polarization in $B \rightarrow VT$ Decays,” A. Datta, Y. Gao, A. V. Gritsan, D. London, M. Nagashima and A. Szynekman, *Phys. Rev. D* **77**, 114025 (2008).
27. “Testing Explanations of the $B \rightarrow \varphi K^*$ Polarization Puzzle,” A. Datta, A. V. Gritsan, D. London, M. Nagashima and A. Szynekman, *Phys. Rev. D* **76**, 034015 (2007).
26. “Polarization in B Decays,” A. V. Gritsan and J. G. Smith, review article, in Particle Data Group, “Review of particle physics,” *Chin. Phys. C* **38**, 090001 (2014). See online <http://pdg.lbl.gov/>
25. “Polarization in B Decays,” A. V. Gritsan and J. G. Smith, review article, in Particle Data Group, “Review of particle physics,” *Phys. Rev. D* **86**, 010001 (2012).
24. “Polarization in B Decays,” A. V. Gritsan and J. G. Smith, review article, page 967 of Particle Data Group, “Review of particle physics,” *J. Phys. G* **37**, 075021 (2010).
23. “Polarization in B Decays,” A. V. Gritsan and J. G. Smith, review article, page 910 of Particle Data Group, “Review of particle physics,” *Phys. Lett. B* **667**, 1 (2008).
22. “Polarization in B decays”, A. Gritsan and J.G. Smith, review article, page 833 of Particle Data Group, “Review of particle physics,” *J. Phys. G* **33**, 1 (2006).

Technical work on silicon detector alignment

21. “Alignment of the CMS Silicon Tracker during Commissioning with Cosmic Rays,” CMS Collaboration, *Journal of Instrumentation (JINST)* **5**, T03009 (2010),
20. “CMS Tracker Alignment at Integration Facility,” CMS Tracker Collaboration, *JINST* **4**, T07001 (2009),
19. “Local Alignment of the *BABAR* Silicon Vertex Tracking Detector,” D. N. Brown, A. V. Gritsan, Z. J. Guo, and D. Roberts, *Nucl. Instr. Methods Phys. Res. A* **603**, 467 (2009).

Discovery and study of the polarization puzzle in gluonic flavor-changing neutral current (FCNC) B -decays

18. “Time-dependent and time-integrated angular analysis of $B \rightarrow \varphi K_S^0 \pi^0$ and $\varphi K^\pm \pi^\mp$,” *BABAR* Collaboration, Phys. Rev. D **78**, 092008 (2008).
17. “Observation and Polarization Measurements of $B^\pm \rightarrow \varphi K_1^\pm$ and $B^\pm \rightarrow \varphi K_2^{*\pm}$,” *BABAR* Collaboration, Phys. Rev. Lett. **101**, 161801 (2008).
16. “Amplitude analysis of the $B^\pm \rightarrow \varphi K^{*\pm}(892)$ decay,” *BABAR* Collaboration, Phys. Rev. Lett. **99**, 201802 (2007).
15. “Search for $B^0 \rightarrow \varphi(K^+\pi^-)$ decays with large $K^+\pi^-$ invariant mass,” *BABAR* Collaboration, Phys. Rev. D **76**, 051103 (2007).
14. “Vector-Tensor and Vector-Vector Decay Amplitude Analysis of $B^0 \rightarrow \varphi K^{*0}$,” *BABAR* Collaboration, Phys. Rev. Lett. **98**, 051801 (2007).
13. “Measurement of the $B^0 \rightarrow \varphi K^{*0}$ Decay Amplitudes,” *BABAR* collaboration, Phys. Rev. Lett. **93**, 231804 (2004).
12. “Rates, Polarizations, and Asymmetries in Charmless Vector-Vector B Decays,” *BABAR* collaboration, Phys. Rev. Lett. **91**, 171802 (2003).
11. “Direct CP Violation Searches in Charmless Hadronic B Meson Decays,” *BABAR* collaboration, Phys. Rev. D **65**, 051101 (2002).
10. “Measurement of the Decays $B \rightarrow \varphi K$ and $B \rightarrow \varphi K^*$,” *BABAR* collaboration, Phys. Rev. Lett. **87**, 151801 (2001).

Discovery of $B \rightarrow \rho\rho$ and application to CKM angle α

9. “Measurement of the Branching Fraction, Polarization, and CP Asymmetries in $B^0 \rightarrow \rho^0 \rho^0$ Decay, and Implications for the CKM Angle α ,” *BABAR* collaboration, Phys. Rev. D **78**, 071104 (2008).
8. “Evidence for the $B^0 \rightarrow \rho^0 \rho^0$ Decay and Implications for the CKM Angle α ,” *BABAR* collaboration, Phys. Rev. Lett. **98**, 111801 (2007).
7. “Limit on the $B^0 \rightarrow \rho^0 \rho^0$ Branching Fraction and Implications for the CKM Angle α ,” *BABAR* collaboration, Phys. Rev. Lett. **94**, 131801 (2005).
6. “Observation of the Decay $B^0 \rightarrow \rho^+ \rho^-$ and Measurement of the Branching Fraction and Polarization,” *BABAR* collaboration, Phys. Rev. D **69**, 031102 (2004).

Discovery of gluonic penguin B meson decays (FCNC) and related studies

5. “Study of B Meson Decays with Excited η and η' Mesons,” *BABAR* collaboration, Phys. Rev. Lett. **101**, 091801 (2008).
4. “Two-body B Meson Decays to η and η' : Observation of $B \rightarrow \eta K^*$. CLEO collaboration, Phys. Rev. Lett. **85**, 520 (2000).

3. "Measurement of Charge Asymmetry in Charmless Hadronic B Meson Decays," CLEO collaboration, Phys. Rev. Lett. **85**, 525 (2000).
2. "Observation of $B^+ \rightarrow \omega K^+$ and Search for Related Modes," CLEO collaboration, Phys. Rev. Lett. **81**, 272 (1998).
1. "Two-body B Meson Decays to η and η' : Observation of $B \rightarrow \eta' K$," CLEO collaboration, Phys. Rev. Lett. **80**, 3710 (1998).

Talks at conferences, colloquia, and seminars

93. "Summary of the Higgs boson standard model and anomalous couplings," Higgs Hunting Workshop, LAL Orsay, France, July 2015.
92. "Matter in Space and Time: What Do We Know?" Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July 2015.
91. "Mass, width, and quantum numbers: everything about the Higgs boson with 20 events," Particle Physics Seminar at the University of Virginia, Charlottesville, VA, January 2015.
90. "Mass, width, and quantum numbers: everything about the Higgs boson with 20 events," Particle Physics Seminar at the Johns Hopkins University, Baltimore, MD, November 2014.
89. "The Higgs boson mass, width, quantum numbers: recent results from CMS," seminar at the University of Rochester, Rochester, NY, October 2014.
88. "What is the Higgs boson and why do some call it the God Particle," Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2014.
87. "How Wide is the Higgs Boson: Off-shell Constraints from CMS," seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, May 2014.
86. "How Wide is the Higgs Boson: Off-shell Constraints from CMS," seminar at SLAC National Accelerator Laboratory, Stanford University, Palo Alto, CA, May 2014.
85. "What is the Higgs boson and why do some call it the God Particle," Odyssey Public Lecture Series, Johns Hopkins University, Baltimore, MD, April 2014.
84. "Spin and CP -mixture of a Higgs Boson at CMS," Higgs Couplings Workshop, Freiburg, Germany, October 2013.
83. "Higgs Boson Spin and CP Mixture Properties," Meetings on the Future of Energy Frontier of Particle Physics (Snowmass), University of Minnesota, Minneapolis, MN, August 2013.
82. "Science of the Nuclear Energy," Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2013.
81. "Working Group Report on the Studies of the Higgs Boson," Meetings on the Future of Energy Frontier of Particle Physics (Snowmass), University of Washington, Seattle, WA, July 2013.
80. "Higgs Boson Spin and CP Mixture Properties," Meetings on the Future of Energy Frontier of Particle Physics (Snowmass), University of Washington, Seattle, WA, July 2013.
79. "The Physics Case for the Energy Frontier," Panel presentation at the Meeting on the Future of Energy Frontier of Particle Physics (Snowmass), Brookhaven National Laboratory, April 2013.
78. "The Weak Mixing Angle at LHC and CMS Experience," Meeting on the Future of Energy Frontier of Particle Physics (Snowmass), Brookhaven National Laboratory, April 2013.

77. "Higgs Spin and CP Mixture Overview," Meeting on the Future of Energy Frontier of Particle Physics (Snowmass), Brookhaven National Laboratory, April 2013.
76. "The Hunt for the Elusive Higgs Boson," Colloquium at the Johns Hopkins University, Baltimore, MD, November 2012.
75. "Tools for the Higgs Boson Property Measurements: MELA and JHUGen," Higgs Couplings Workshop, Tokyo, Japan, November 2012.
74. "On the Spin and Parity of the New Boson at the LHC," Seminar at the LEPP Journal Club, Cornell University, Ithaca, NY, October 2012.
73. "A discovery in the search for the Higgs boson at CMS," seminar at SLAC National Accelerator Laboratory, Palo Alto, CA, August 9, 2012.
72. "A discovery in the hunt for the elusive Higgs boson," Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2012.
71. "A discovery in the search for the Higgs boson at CMS," seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, July 17, 2012.
70. "A discovery in the search for the Higgs boson at CMS," Joint Experimental-Theoretical Seminar (Wine-and-Cheese Seminar), Fermi National Accelerator Laboratory, Batavia, IL, July 9, 2012.
69. "A discovery in the search for an illusive Higgs boson," Johns Hopkins University Seminar, Baltimore, MD, July 6, 2012.
68. "The Higgs $\rightarrow ZZ$ Channel," Workshop "The Next Stretch of the Higgs Magnificent Mile," Northwestern University, Chicago, IL, May 2012.
67. "Hints of the Light Higgs Boson at CMS," Workshop on Light Higgs and Implications for the Search for New Physics at the LHC, University of Pittsburgh, PA, January 2012.
66. "The Big Bang Theory and Puzzles of the Universe," Lectures at the Renaissance Weekend, Charleston, SC, December 2011.
65. "Science of Nuclear Energy," Seminar at the Renaissance Weekend, Charleston, SC, December 2011.
64. "Latest news on the Higgs boson search at the LHC," Seminar at the Johns Hopkins University, Baltimore, MD, December 2011.
63. "The heavy invisible light from the Large Hadron Collider," Colloquium at the Johns Hopkins University, Baltimore, MD, September 2011.
62. "Search for the Higgs boson with the CMS detector at the LHC," Particle Physics Seminar at the Johns Hopkins University, Baltimore, MD, August 2011.
61. "Searches for the Higgs boson with the CMS Experiment," 15th Lomonosov Conference on Elementary Particle Physics, Moscow, Russia, August 2011.
60. "Status of LHC and the Higgs search," Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2011.

59. “First Study of Di-Lepton Forward-Backward Asymmetry and Measurement of $\sin^2 \theta_W$ at CMS,” LHC Workshop on Precision Electroweak Measurements, CERN, Geneva, Switzerland, April 2011.
58. “Space-time,” Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2010.
57. “Spin determination of single-produced resonances at hadron colliders,” MCTP Spring Symposium on Higgs Boson Physics, Ann Arbor, MI, May 2010.
56. “Spin determination of single-produced resonances at LHC,” seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, May 2010.
55. “Spin determination of single-produced resonances at LHC,” seminar at SLAC National Accelerator Laboratory, Palo Alto, CA, May 2010.
54. “Spin determination of single-produced resonances at LHC,” seminar at University of California, Davis, CA, May 2010.
53. “The Power of Spin Correlations: from B -decays to Higgs and Beyond at the LHC,” Joint Experimental-Theoretical Seminar (Wine-and-Cheese Seminar), Fermi National Accelerator Laboratory, Batavia, IL, April 2010.
52. “Spin determination of single-produced resonances at LHC,” Joint Particle Physics Seminar, University of Maryland and Johns Hopkins University, March 2010.
51. “The Higgs Particle, or the Origin of Mass,” Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2009.
50. “First Alignment of the CMS Tracker and Implications for the First Collision Data,” EPSHEP09: The 2009 Europhysics Conference on High Energy Physics, Krakow, Poland, July 2009.
49. “CMS Tracker alignment strategy with cosmic muons,” the 3rd LHC Detector Alignment Workshop, CERN, Geneva, Switzerland, June 2009.
48. “Measurements of CKM Angle α ,” ICHEP-2008, 34th International Conference on High Energy Physics, Philadelphia, PA, August 2008.
47. “What If the Particle World Were Different?” Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2008.
46. “The Uncertainty Principle, the Quarks, and the Search for New Physics,” colloquium at Towson University, Towson, MD, Fall 2007.
45. “The Uncertainty Principle and the Quarks,” Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2007.
44. “First CMS alignment geometry,” the 2nd LHC alignment workshop in Geneva, Switzerland, June 2007.
43. “Hot Topics from *BABAR*,” the 5th Flavor Physics and CP Violation Conference Bled, Slovenia, May 2007.

42. "The Uncertainty Principle, the Quarks, and the Search for New Physics," colloquium at the Johns Hopkins University, Baltimore, MD, Spring 2007.
41. "Measurement of α : Taming the Mischievous Penguin," Joint Experimental-Theoretical Seminar (Wine-and-Cheese Seminar), Fermi National Accelerator Laboratory, Batavia, IL, December 2006.
40. "Measurement of α : Taming the Mischievous Penguin," seminar at the Johns Hopkins University, Baltimore, MD, December 2006.
39. "Vector-Tensor and Vector-Vector B Decays at *BABAR*," Joint Meeting of Japan and American Physics Society Division of Particles and Fields, Honolulu, Hawaii, November 2006.
38. "Matter and Anti-Matter: What is the Matter with Them?" Lectures at the QuarkNet center, Johns Hopkins University, Baltimore, MD, July – August 2006.
37. "Experience and Ideas for Silicon Detector Alignment," Pixel Detector Software Workshop, Fermi National Accelerator Laboratory, Batavia, IL, January 2006.
36. " $B \rightarrow$ Vector-Vector Polarization and Weak Phases," CKM Angles Workshop, SLAC National Accelerator Laboratory, Palo Alto, CA, September 2005.
35. "Measuring CKM Angle α with $B \rightarrow \rho\rho$ and $\rho\pi$," INT Workshop on Flavor Physics and QCD, University of Washington, Seattle, WA, May 2005.
34. "Physics and Simulation for $B \rightarrow$ Vector-Vector," Super B Factory Workshop, University of Hawaii, Honolulu, HI, April 2005.
33. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at the Johns Hopkins University, Baltimore, MD, March 2005.
32. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at the University of California at Irvine, Irvine, CA, March 2005.
31. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at Massachusetts Institute of Technology, Boston, MA, February 2005.
30. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at Cornell University, Ithaca, NY, February 2005.
29. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at Indiana University, Bloomington, IN, February 2005.
28. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at the University of Colorado at Boulder, Boulder, CO, February 2005.
27. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, January 2005.
26. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at Fermi National Accelerator Laboratory, Batavia, IL, January 2005.

25. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at the University of Washington, Seattle, WA, January 2005.
24. "Rare Vector-Vector B Decays: a New Window on Fundamental Interactions," seminar at the University of Hawaii, Honolulu, HI, November 2004.
23. "Highlights of the *BABAR* Results at ICHEP-2004," seminar at Budker Institute for Nuclear Physics, Novosibirsk, Russia, August 2004.
22. "Polarization Puzzle in $B \rightarrow \varphi K^*$ and Other $B \rightarrow VV$ at *BABAR*," ICHEP-2004, 32th International Conference on High Energy Physics, Beijing, China, August 2004.
21. "A New Approach to Alpha and New Physics with Rare Vector-Vector B Decays," seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, April 2004.
20. "A New Approach to Alpha and New Physics with Rare Vector-Vector B Decays," seminar at the University of California at Riverside, CA, March 2004.
19. "A New Approach to Alpha and New Physics with Rare Vector-Vector B Decays," seminar at McGill University, Montreal, Canada, January 2004.
18. "Experimental Studies of Triple Product Correlations," CKM Angles Physics Workshop, SLAC National Accelerator Laboratory, Palo Alto, CA, October 2003.
17. "Selected Topics in Heavy Flavor Physics: Highlights of Summer 2003," Seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, September 2003.
16. " $B \rightarrow$ Vector Vector Experimental Issues and Prospects," Workshop on the Discovery Potential of a B Factory at 10^{36} , SLAC, Stanford, CA, May 2003.
15. "Rare Vector-Vector B decays: a Laboratory for Strong and Weak Dynamics," seminar at TRIUMF national laboratory, U. of British Columbia, April 2003;
14. "Rare Vector-Vector B decays: a Laboratory for Strong and Weak Dynamics," seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, March 2003.
13. "Measurement of $\sin(2\alpha)$ at *BABAR*," The 8th International Conference on B -physics (BEAUTY-2002), Santiago de Compostela, Spain, June 2002.
12. "Angular Analysis of Charmless B Decays to Vector-Vector," Workshop on Angular Analysis in Heavy Meson Decays, SLAC, Stanford, CA, December 2001.
11. "Summary of the Flavor Physics Group report from Snowmass," seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, August 2001.
10. "New Physics with Rare B Meson Decays," Meeting on Future of the Particle Physics, Snowmass, CO, July 2001.
9. "Rare B Meson Decays with η' or η Mesons: $\eta' K$ Puzzle," seminar at the University of Colorado, Boulder, CO, May 2000.
8. "Rare B Meson Decays with η' or η Mesons: $\eta' K$ Puzzle," seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, April 2000.

7. "Rare B Meson Decays with η' or η Mesons: $\eta'K$ Puzzle," seminar at SLAC National Accelerator Laboratory, Palo Alto, CA, April 2000.
6. "Rare B Meson Decays with η' or η Mesons: $\eta'K$ Puzzle," seminar at the University of California at Santa Barbara, CA, March 2000.
5. "Rare B Meson Decays with η' or η Mesons: $\eta'K$ Puzzle," seminar at the University of California at San Diego, CA, March 2000.
4. "Charmless Hadronic B Meson Decays with CLEO," The 15th Lake Louise Winter Institute, Canada, February 2000.
3. "Two-body B Meson Decays to η , η' , ω and φ ," American Physics Society Meeting, Columbus, OH, April 1998.
2. "The $BABAR$ Prototype Calorimeter," The 34th Novosibirsk International Student Conference, Russia, April 1996.
1. "The SND Calorimeter First Level Trigger," The 34th Novosibirsk International Student Conference, Russia, April 1996.

Community Service

- Co-leader of the "Snowmass-2013" high-energy physics community effort in the study group of the Higgs boson at the Energy Frontier, 2012-2013.
- Coordinator of the "Snowmass-2001" high-energy physics community effort in the study group of the Flavor physics with quarks, 2001.
- International research review panels and committees:
 - US National Science Foundation (NSF), 2009-2012;
 - US Department of Energy (DOE), panel review of US operation program of LHC, 2011;
 - SRI International's Center for Science, Technology and Economic Development, 2009–2013.
- Leading public science outreach activities through exhibits at the National Science and Engineering Festivals, University Physics Fairs, and lectures at the Quarknet programs, 2006-2015.

Popular Articles and Coverage in the Media

16. "Half-life of the Higgs boson," *Fermilab Today*, May 2014, 2014, http://www.fnal.gov/pub/today/archive/archive_2014/today14-05-27.html
15. "Tracking Down the Centerpiece of Particle Physics," *Johns Hopkins Physics and Astronomy Feature Article*, December 2013, <http://krieger2.jhu.edu/pubs/physics/features.html>
14. "What is the Higgs boson? Johns Hopkins physicist discusses Nobel-winning find," HUB news network, October 2013, <http://hub.jhu.edu/2013/10/08/higgs-boson-nobel-gritsan>
13. "New bosons mirror image looks like the Higgs," *CERN Courier*, February 2013, <http://cerncourier.com/cws/article/cern/52021>
12. "Is it the Higgs boson?" *Fermilab Today*, January 11, 2013, http://www.fnal.gov/pub/today/archive/archive_2013/today13-01-11.html
11. Featured article on LHC discovery, *The Magazine of the JHU Arts and Sciences*, November 2012, <http://krieger.jhu.edu/magazine/2012/11/andei-gritsan/>
10. "Gravity and the Standard Model," *Fermilab Today*, October 26, 2012, http://www.fnal.gov/pub/today/archive/archive_2012/today12-10-26.html
9. "Midday on Science," appearance on a radio show with Dan Rodricks, as an expert on the Higgs particle, on Public Radio at WYPR 88.1 FM, 1–2pm, January 9, 2012. <http://www.wypr.org/podcast/monday-january-9-1-2-pm-midday-science>
8. "Maryland Morning," appearance on a radio show with Sheilah Kast, as an expert on the Higgs particle, on Public Radio at WYPR 88.1 FM, 9–9:30am, December 16, 2011. <http://mdmorn.wordpress.com/2011/12/16/1216111-its-bird-its-a-plane-its-the-higgs-boson-no-wait-maybe/>
7. "Hopkins, Maryland help in worldwide hunt for elusive Higgs boson," *The Baltimore Sun*, December 14, 2011, <http://www.baltimoresun.com/business/bs-bz-higgs-boson-research-20111213,0,165615.story>
6. "The Weak Mixing of Light and Heavy," A. Gritsan and N. Tran, *CMS Times*, November 7, 2011, http://cmsinfo.web.cern.ch/cmsinfo/Media/Publications/CMStimes/2011/11_07/
5. "Weinberg's angle," *Fermilab Today*, November 11, 2011, http://www.fnal.gov/pub/today/archive_2011/today11-11-11.html
4. "Hadron collisions reach out to people in Washington," A. Gritsan, *CMS Times*, November 1, 2010, http://cmsinfo.web.cern.ch/cmsinfo/Media/Publications/CMStimes/2010/11_01/
3. "Alignment of a Giant," A. Gritsan, *CMS Times*, March 1, 2010, http://cmsinfo.web.cern.ch/cmsinfo/Media/Publications/CMStimes/2010/03_01/
2. "Particles Spin Mysteriously through the *BABAR* Detector," A. Gritsan, *Science Today in SLAC Today*, October 26, 2006, <http://today.slac.stanford.edu/a/2006/10-26.htm>
1. "*BABAR* Tames the Mischievous Penguin," A. Gritsan, *Science Today in SLAC Today*, August 17, 2006, <http://today.slac.stanford.edu/a/2006/08-17.htm>