

TALKS AND POSTER PRESENTATIONS GIVEN AT NATIONAL, REGIONAL, STATE, AND LOCAL CONFERENCES, INCLUDING THE TALKS/PRESENTATIONS CO-AUTHORED WITH MY RESEARCH STUDENTS (1993 –PRESENT):

1. “*2013 Nobel Prize in Physics for the Discovery of the Higgs Boson*”, Akhtar Mahmood, invited talk presented at the IDC 101 class at Bellarmine University on November 26, 2013.
2. “*Open Science Grid (OSG) Tier3 Grid Supercomputer at Bellarmine University*”, Bryan Fagan, Tyler Martinez, and Akhtar Mahmood, poster presented at the APS Southeastern Section Meeting at WKU on November 20-23, 2013. Bryan received a \$265 travel grant award from APS to present the poster at the APS conference.
3. “*Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider (LHC) at CERN*”, Bryan Fagan, Tyler Martinez, and Akhtar Mahmood, poster presented at the 99th Annual KAS Kentucky at Morehead State University on November 9, 2013.
4. “*Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider (LHC) at CERN*”, Bryan Fagan, Tyler Martinez, and Akhtar Mahmood, poster presented at National EPSCoR Conference in Nashville on November 3-7, 2013. EPSCoR grant paid for the travel expenses for the two students.
5. “*Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider (LHC) at CERN*”, Bryan Fagan, Tyler Martinez, and Akhtar Mahmood, poster presented at the Kentucky Annual EPSCoR Conference at Uof L on October 17, 2013.
6. “*Discovery of the Higgs Boson at the Large Hadron Collider (LHC)*”, Akhtar Mahmood, invited public talk presented at Bellarmine University on May 23, 2013.
7. “*Discovery of the Higgs Boson at the Large Hadron Collider (LHC)*”, Akhtar Mahmood, invited talk presented at the IDC 101 class at Bellarmine University on April 30, 2013.
8. “*Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider(LHC) at CERN*”, Bryan Fagan and Akhtar Mahmood, invited poster presented at the 2013 Bellarmine University Heritage Dinner, April 17, 2013.
9. “*Discovery of the Higgs Boson at the Large Hadron Collider (LHC)*”, Nick Hushebeck, Bryan Fagan and Akhtar Mahmood, poster presented at the 13th Annual Undergraduate Research Week at Bellarmine University on April 15, 2013.
10. “*Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider(LHC) at CERN*”, Bryan Fagan and Akhtar Mahmood, poster presented at the 13th Annual Undergraduate Research Week at Bellarmine University on April 15, 2013. This poster was selected as one of the best research projects at the poster competition.
11. “*Discovery of the Higgs Boson at the Large Hadron Collider (LHC)*”, Akhtar Mahmood, invited Physics colloquium talk presented at WKU on April 8, 2013.
12. “*The Standard Model and the Higgs Boson*”, Akhtar Mahmood, invited talk presented at the IDC 101 class at Bellarmine University on February 23, 2013.
13. “*Discovery of the Higgs Boson at the Large Hadron Collider (LHC)*”, Akhtar Mahmood, talk presented at the 2012 Annual KAS Meeting held at ECU on October 20, 2012.
14. “*Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider(LHC) at CERN*”, Bryan Fagan and Akhtar Mahmood, poster presented at the 2012 KAS (Kentucky Academy of Science) meeting held at Eastern Kentucky University on October 20, 2012.
15. “*Computational Physics using Parallel Cluster Computing*”, Meghan Allen and Akhtar Mahmood, talk presented at the 97th KAS (Kentucky Academy of Science) meeting held at Eastern Kentucky University on October 20, 2012. Meghan Allen won the Second Prize at the Undergraduate Research Competition in the Science Education Paper Session.
16. “*Monte-Carlo Simulation and Data Analysis to Search for the Higgs Particle by Studying the Decay Patterns of the W and Z Bosons (the Electroweak Force Carriers) Using the ATLAS Detector at the CERN-LHC (Large Hadron Collider)*”, Sean Dockery, Antonin Verlet-Banide, and Akhtar Mahmood, presented a poster at the 12th Annual Undergraduate Research Week at Bellarmine University on April 18, 2012.
17. “*Building a Fast Parallel Cluster Computer Using Slow PCs*”, Jovan Andjelich, Sean Dockery, Meghan Allen, Nick Hushebeck, Akhtar Mahmood and Faiz Ahmad, poster presented at the 12th Annual Undergraduate Research Week at Bellarmine University on April 18, 2012.
18. “*Monte-Carlo Simulation and Data Analysis Studies to Search for the Higgs Boson using the ATLAS Detector at the CERN-LHC (Large Hadron Collider)*”, Sean Dockery and Akhtar Mahmood, poster presented at the 2012 Annual KAPT meeting held at Western Kentucky University on March 17, 2012.

19. “*Computational Physics Using Parallel Cluster Computing*”, Jovan Andjelich, Akhtar Mahmood, Nick Hushebeck, and Meghan Allen, talk presented at 2012 Annual KAPT (Kentucky Academy of Physics Teachers) meeting held at Western Kentucky University on March 17, 2012.
20. “*The ATLAS Tier3 Grid Supercomputer at Bellarmine University*”, Meghan Allen and Akhtar Mahmood presented a poster at the at 97th Annual KAS meeting held at Murray State University on November 5, 2011. Meghan Allen won the First Prize at the Undergraduate Research Competition in the Computer and Information Sciences Poster Session.
21. “*Study of W and Z Bosons with ATLAS Monte-Carlo Data at CERN-LHC*”, Antonin Verlet-Banide and Akhtar Mahmood, talk given at the 97th Annual KAS Meeting held at Murray State University on November 5, 2011.
22. “*Monte-Carlo Simulation Studies using the ATLAS Detector at the Large Hadron Collider (LHC) at CERN*”, Sean Dockery and Akhtar Mahmood, poster presented at the 97th Annual KAS meeting held at Murray State University on November 5, 2011.
23. “*Simulation and Testbed Studies Aimed at Detecting Earth-like Exoplanets with NASA’s Next Generation Space-based SIM-Lite Astrometric Observatory*”, Akhtar Mahmood, Ben Draper, Richard Jelsma, Bijan Nematı (Jet Propulsion Lab), talk given at the 2011 Annual American Physical Society (APS) Meeting, held at Anaheim, CA, April 30-May 3, 2011.
24. “*Simulation and Testbed Studies Aimed at Detecting Earth-Like Planets with NASA’s Next-Generation Space-based SIM-Lite Astrometric Observatory*”, Ben Draper, Richard Jelsma, Akhtar Mahmood, Bijan Nematı (Jet Propulsion Lab), talk given at the 2011 Annual KAPT Meeting at Eastern Kentucky University, March 19, 2011.
25. “*Monte-Carlo Simulation and Data Analysis using the ATLAS Detector at the CERN-LHC (Large Hadron Collider)*”, Drew Miles and Cody Haycraft, and Akhtar Mahmood, invited poster presented at the 2011 Bellarmine University Heritage Dinner, April 14, 2011.
26. “*The ATLAS Tier3 Supercomputer at Bellarmine University*”, Jovan Andjelich, Benjamin Draper, Drew Miles, Sean Dockery, and Akhtar Mahmood, poster presented at the 11th Annual Undergraduate Research Week at Bellarmine University, April 10-17, 2011. This poster was selected as one of the best research projects at research competition.
27. “*Monte-Carlo Simulation and Data Analysis using the ATLAS Detector at the CERN-LHC (Large Hadron Collider)*”, Drew Miles, Cody Haycraft, Jovan Andjelich, Sean Dockery, Benjamin Draper, and Akhtar Mahmood, poster presented at the 11th Annual Undergraduate Research Week, April 10-17, 2011.
28. “*Simulation and Testbed Studies Aimed at Detecting Earth-like Exoplanets with NASA’s Next Generation Space-based SIM-Lite Astrometric Observatory*”, Richard Jelsma, Benjamin Draper, Akhtar Mahmood, Bijan Nematı (Jet Propulsion Lab), Western Kentucky University (WKU) on Nov. 13, 2010. Richard Jelsma won the First Prize at the Undergraduate Research Competition in the Physics & Astronomy Poster Session.
29. “*The Sphinx Beowulf Cluster Project at Bellarmine University*”, Jovan Andjelich and Akhtar Mahmood, poster presented at the 96th KAS meeting at the Western Kentucky University (WKU) on Nov. 13, 2010. Jovan Andjelich won the First Prize at the Undergraduate Research Competition in the Computer and Information Sciences Poster Session.
30. “*Simulation and Testbed Studies Aimed at Detecting Earth-like Exoplanets with NASA’s Next Generation Space-based SIM-Lite Astrometric Observatory*”, Benjamin Draper, Richard Jelsma, Akhtar Mahmood, and Bijan Nematı (Jet Propulsion Lab), poster presented at the 10th Annual Undergraduate Research Week at Bellarmine University, April 11-18, 2010.
31. “*The Sphinx Beowulf Cluster Computing Project at Bellarmine University*”, Dzmıtry Miranovich, Christopher Tharp, Ben Draper, Antonio Castineira, Richard Jelsma, and Akhtar Mahmood, poster presented at the 10th Annual Undergraduate Research Day at Bellarmine University in April 11-18, 2010. This poster was selected as one of the best research projects at the poster competition.
32. “*Simulation and Testbed Studies Aimed at Detecting Earth-like Exoplanets with NASA’s Next Generation Space-based SIM-Lite Astrometric Observatory*”, Akhtar Mahmood, Benjamin Draper, Richard Jelsma, Bijan Nematı (Jet Propulsion Lab), talk given at the 2010 Annual KAPT Meeting at Centre College, March 13, 2010.
33. “*Planet Quest: The Search for Another Earth*”, Akhtar Mahmood, talk presented at the 2010 Annual KAPT (Kentucky Association for Physics Teachers) Meeting at Centre College on March 13, 2010.
34. “*Planet Quest: Search for Extra-Solar Earth-like Planets with SIM-Lite*”, Akhtar Mahmood, invited talk presented at the Rauch Planetarium at UofL on Nov. 19, 2009. This talk was part of the BU and UofL joint NASA event to celebrate the 2009 International Year of Astronomy in Louisville.
35. “*Measurement of Muon Flux and Muon Lifetime Using the Bellarmine Cosmic Ray Muon Detector*”, Richard Jelsma, Ben Draper and Akhtar Mahmood, poster presented at the 95th Kentucky Academy of Science (KAS) Annual Meeting at NKU on November 14, 2009. Richard Jelsma won the First Prize at the Undergraduate Research Competition in the Physics & Astronomy Poster Session.

36. “*Mass Predictions of Charmed and Beauty Baryons*”, Ben Draper and Akhtar Mahmood – presented at the 95th Kentucky Academy of Science (KAS) Annual Meeting at NKU on November 14, 2009. Ben Draper won the First Prize at the Undergraduate Research Competition in the Physics & Astronomy Presentation Session.
37. “*Search for New Subatomic Particles using a High Energy Electron-Positron Particle Accelerator*”, Akhtar Mahmood, talk presented at the Bellarmine University Faculty Forum on Jan. 23, 2009.
38. “*Theoretical Mass Predictions of Double and Triple Charmed and Beauty Baryons Using the Bellarmine-Baryon-Mass-Model*”, Ben Draper and Akhtar Mahmood - Benjamin Elza Draper, Yan Chen, Richard Jelsma, Rachel Keyser, Ian Tracy, and Dr. Akhtar Mahmood, talk presented at the Spring 2009 KAPT (Kentucky Academy of Physics Teachers) meeting held at Bellarmine University on March 7, 2009.
39. “*Theoretical Mass Predictions of Double and Triple Charmed and Beauty Baryons Using the Bellarmine-Baryon-Mass-Model*”, Benjamin Elza Draper, Yan Chen, Richard Jelsma, Rachel Keyser, Ian Tracy, and Dr. Akhtar Mahmood, invited poster presented at the 2009 Bellarmine University Heritage Dinner, April 21, 2009.
40. “*Measurement of Muon Flux and Muon Lifetime Using the Bellarmine Cosmic Ray Muon Detector*”, Ben Draper, Richard Jelsma, Yan Chen, and Akhtar Mahmood, invited poster presented at the 2009 Bellarmine University Heritage Dinner, April 21, 2009.
41. “*Theoretical Mass Predictions of Double and Triple Charmed and Beauty Baryons Using the Bellarmine-Baryon-Mass-Model*”, Benjamin Elza Draper, Yan Chen, Richard Jelsma, Rachel Keyser, Ian Tracy, and Dr. Akhtar Mahmood, poster presented at the at the 9th Undergraduate Research Week Poster Session at Bellarmine University on April 14, 2009.
42. “*Measurement of Muon Flux and Muon Lifetime Using the Bellarmine Cosmic Ray Muon Detector*”, Ben Draper, Richard Jelsma, Yan Chen, and Akhtar Mahmood - poster presented by students at the at the 9th Undergraduate Research Week at Bellarmine University on April 14, 2009. This poster was selected as one of the best research projects at poster competition.
43. “*Evidence of the Ω_c^* Charmed Baryon at the BABAR Detector at SLAC*”, Akhtar Mahmood, talk presented at the 94th Kentucky Academy of Science 2008 Annual Meeting, held at the University of Kentucky on November 1, 2008.
44. “*A Survey of Subatomic Particles with Charmed Quarks*”, poster presented by my research student Zachary Kemper at the at the Eighth Undergraduate Research Week Poster Session at Bellarmine University on April 14, 2008.
45. “*Grid: The New Computational Infrastructure for 21st Century Data Intensive Science*”, Akhtar Mahmood, talk presented at the 93rd Kentucky Academy of Science 2007 Annual Meeting, at the University of Louisville on November 10, 2007. The abstract of the talk was published at the Spring 2008 Journal of Kentucky Academy of Sciences, Vol. 69, No. 1, 2008.
46. “*Evidence of New Subatomic Particles with Heavy Quarks*”, Akhtar Mahmood, talk presented at the 93rd Kentucky Academy of Science 2007 Annual Meeting, held at the University of Louisville on November 10, 2007. The abstract of the talk was published at the Spring 2008 Journal of Kentucky Academy of Sciences, Vol. 69, No. 1, 2008.
47. “*How to Search for Charmed Baryons from large Datasets*”, Akhtar Mahmood, invited talk presented at the Departmental Research Seminar at the Winston-Salem State University, North Carolina, on May 4, 2007.
48. “*Observation of New Subatomic Particles with the Charm Quark*”, Akhtar Mahmood, invited talk presented at a Physics Research Seminar at the Department of Natural Sciences and Mathematics at the Savannah State University, Georgia, on April 20, 2007.
49. “*Evidence of New Subatomic Particles from the CLEO Experiment at CESR (Cornell Electron Storage Ring) and the BABAR Experiment at SLAC (Stanford Linear Accelerator Center)*”, Akhtar Mahmood, talk presented at the on-campus interview seminar at Bellarmine University, Kentucky, on March 30, 2007.
50. “*Evidence of New Subatomic particles with Heavy Quarks*”, Akhtar Mahmood, invited talk presented at a Physics Research Seminar at the Department of Physics at the State University of New York at Plattsburgh on March 23, 2007.
51. “*Grid Computing: The Next Revolution in High Performance Computing*”, Akhtar Mahmood, invited talk presented at a Physics Seminar at the Department of Physics at Purdue University – Calumet, Indiana, on March 9, 2007.
52. “*Data-Intensive Computational Science Research using Grid Computing*”, Akhtar Mahmood, invited talk presented at the Division of Natural Science and Mathematics Research Seminar at Richard Stockton College of New Jersey, on March 5, 2007.
53. “*Teaching Thermodynamics to Undergraduates using Computer Simulation*”, Akhtar Mahmood, invited talk presented at the Division of Natural Sciences Seminar at Carroll University, Wisconsin, on March 1, 2007.

54. “*New Symmetry Representation of SU(5) Beauty Baryons using Group Theory*”, Akhtar Mahmood, talk presented at the Fall 2006 Western-PA Section AAPT (American Association of Physics Teachers) Meeting held at Westminster College on September 30, 2006.
55. “*A Mass Spectroscopy Model of Charmed Baryons*”, Jack Dougherty and Akhtar Mahmood, talk presented at the Fall 2006 Western-PA Section AAPT (American Association of Physics Teachers) Meeting held at Westminster College on September 30, 2006.
56. “*Application of Group Theory in Particle Physics using the Young Tableaux Method*”, Akhtar Mahmood, talk presented at the 2006 PASSHE-Math Conference held at Edinboro University of Pennsylvania in Meadville on March 31, 2006.
57. “*A Correctional Study of Light and Charmed Baryon Mass via Gluon and Quark Composition*”, James O’Kane and Akhtar Mahmood, talk presented at the Physics & Technology Departmental Seminar at Edinboro University of Pennsylvania on May 6, 2005.
58. “*Construction and Implementation of the Sphinx Beowulf Cluster*”, Saiful Ahsan and Akhtar Mahmood, talk presented at the Physics & Technology Departmental Seminar at Edinboro University of Pennsylvania on April 22, 2005.
59. “*Using the MIX X-term Software to Remotely Access and Run Parallel Code on the Sphinx Beowulf Cluster*”, Jason Mucio and Akhtar Mahmood, talk presented at the Physics & Technology Departmental Seminar at Edinboro University of Pennsylvania on April 22, 2005.
60. “*Results of Benchmark Studies on the Sphinx Beowulf Cluster*”, Shawn Tulenko and Akhtar Mahmood, talk presented at the Physics & Technology Departmental Seminar at Edinboro University of Pennsylvania on April 22, 2005.
61. “*Grid-Enabled High Energy Physics Research using a Beowulf Cluster*”, Akhtar Mahmood, talk presented at the 2005 Annual APS Meeting held in Tampa, Florida from April 16 – 19, 2005.
62. “*Grid – The New Computational Infrastructure for 21st Century Data-Intensive Science*”, Akhtar Mahmood, talk presented at the Spring 2005 Western-PA Section AAPT (American Association of Physics Teachers) Meeting held at Clarion University of Pennsylvania on April 2, 2005.
63. “*The Sphinx Beowulf Cluster Project at Edinboro University of Pennsylvania*”, Saiful Ahsan, Jason Mucio and Akhtar Mahmood, talk presented at the Spring 2005 Western-PA Section AAPT (American Association of Physics Teachers) Meeting held at Clarion University on April 2, 2005.
64. “*Evidence of New Subatomic Particles from the CLEO Collider Experiment at CESR (Cornell Electron Storage Ring) and Research Advancements in Grid Computing*”, Akhtar Mahmood, talk presented at the SM&T Research Group Seminar Series on March 2, 2005 at the Department of Mathematics and Computer Science, Edinboro University of Pennsylvania.
65. “*Discovery of New Subatomic Particles from the CLEO Collider Experiment*”, Akhtar Mahmood, talk presented at the Fall 2004 Western Pennsylvania Section AAPT (American Association of Physics Teachers) Meeting held at the Department of Physics & Technology at Edinboro University of Pennsylvania on October 2, 2004.
66. “*Demonstration of Newton’s First Law of Motion using an Air Puck*”, Akhtar Mahmood, presented at the Fall 2004 Western-PA Section AAPT Meeting held at the Department of Physics & Technology at Edinboro University of Pennsylvania on October 2, 2004.
67. “*Evidence of New Charmed Baryons at CLEO*”, Akhtar Mahmood, invited talk presented at the Department of Physics & Technology at Edinboro University of Pennsylvania on April 15, 2004.
68. “*Teaching Newton’s Laws of Motion using an Interactive Inquiry-based Approach*”, Akhtar Mahmood, invited talk presented at Bloomsburg University of Pennsylvania on March 30, 2004.
69. “*Evidence of New Subatomic Particles at the Cornell Electron Storage Ring (CESR) Accelerator*”, Akhtar Mahmood, invited talk presented at Bloomsburg University of Pennsylvania on March 29, 2004.
70. “*Teaching Engineering Dynamics: Curvilinear Motion in Cylindrical Coordinates*”, Akhtar Mahmood, invited talk presented at East Stroudsburg University of Pennsylvania on February 24, 2004.
71. “*How to Search for Baryons with Charm and Strange Quarks*”, Akhtar Mahmood, invited talk presented at a departmental seminar at Chicago State University (a Minority Serving Institution) on February 20, 2004.
72. “*Grid Computing using a Beowulf Cluster*”, Francisco Alanis and Akhtar Mahmood, talk presented at the Fall 2003 Texas Section APS Meeting, held at Texas Tech. University, October 23 - 25, 2003.
68. “*A Grid Computing Environment using a Beowulf Cluster*”, Francisco Alanis and Akhtar Mahmood, presented at the University of Texas System Southwest Regional Louis Stokes Alliance for Minority Participation (LSAMP) Research Conference, South Padre Island, Texas, September 25, 2003.

69. *“Teaching Physical Science: Developing a Hands-On, Inquiry-based Instructional Model for Teachers”*, Akhtar Mahmood, invited talk presented at a Physics Seminar at the Department of Physics, University of Texas at El Paso on June 30, 2003.
70. *“High Performance Cluster and Grid Computing in High Energy Physics”*, Akhtar Mahmood, talk presented to the students of the UTPA Chapter of IEEE on May 6, 2003, College of Science & Engineering, at University of Texas-Pan American (UTPA).
71. *“Summer Research Opportunities in High Energy Physics at UTPA”*, Akhtar Mahmood, talk presented with video presentation to prospective students of the UTPA Tex-Prep Program, on January 1, 2003.
72. *“Charmed Baryon Spectroscopy at CLEO”*, Akhtar Mahmood, invited talk presented as a Plenary Speaker at the Fall 2002 Texas Section American Physical Society Meeting held at the University of Texas at Brownsville on October 10-12, 2002.
73. *“A New Classification of Charm and Beauty Baryons”*, Ida Trevino, presented a talk at the High Energy Physics Laboratory at UTPA, August 9, 2002.
74. *“Periodic Table of Ground-State Elementary Particles”*, Allan Figueroa, Hugo Valle and Akhtar Mahmood, poster presented at the Annual 2002 APS Meeting, on April 20, 2002 at Albuquerque, New Mexico.
75. *“Why Major in Physics at UTPA”*, Akhtar Mahmood, invited talk presented to the high school students at Rowe High School on April 3, 2002 at UTPA.
76. *“The Physics of the Electron Microscope”*, Akhtar Mahmood, invited talk presented at a Biology Seminar Session on March 20, 2002 at UTPA.
77. *“Education and Outreach: What is High Energy Physics”*, Akhtar Mahmood, invited talk presented to a selected group of high school students and teachers at Rowe High School, on April 27, 2002 at the UTPA’s HEP Lab. (*Part of the Gear-Up Day at UTPA*).
78. *“The High Energy Physics Research Program at UTPA”*, Akhtar Mahmood, talk presented at Site visit of Dr. William Willis, US-ATLAS Program Manager on February 11, 2002, at the UTPA HEP laboratory.
79. *“The UTPA High Energy Physics Research Program and the Beowulf Cluster Computer”*, Allan Figueroa, Hugo Valle, and Akhtar Mahmood, poster presented at the 14th Annual Conference of Rio Grande Valley Science Association on February 1-2, 2002, held at UTPA.
80. *“The Beowulf Parallel Cluster Computer for High Energy Physics Research”*, Allan Figueroa, Hugo Valle and Akhtar Mahmood presented a poster at the 14th Annual Conference of Rio Grande Valley Science Association on February 1-2, 2002, held at UTPA.
81. *“Research Activities in High Energy Physics for High School Students”*, Hector Moscosa and Akhtar Mahmood, talk presented to a group of high school students of Rowe High School, on April 27, 2002 at the UTPA’s HEP Lab. (*Part of the Gear-Up Day at UTPA*).
82. *“Periodic Table of Ground-State Elementary Particles”*, Hugo Valle, Allan Figueroa, and Akhtar Mahmood, poster presented at the Annual 2002 APS Meeting on April 20, 2002 at Albuquerque, New Mexico.
83. *“Student Research Projects in High Energy Physics Research at UTPA”*, Hector Moscosa, Allan Figueroa, Hugo Valle, and Akhtar Mahmood, talk presented at the NSF Site Visit on February 11, 2002, at the HEP laboratory, UTPA.
84. *“Gold & Gold High Energy Collisions”*, Hugo Valle, talk presented a poster at the First Joint APS/DNP (American Physical Society/Division of Nuclear Physics) and JPS (Japan Physical Society) Meeting on October 19, 2001, held at Maui, Hawaii.
85. *“Periodic Table of Elementary Particles”*, Allan Figueroa and Akhtar Mahmood, poster presented at the American Physical Society’s Texas Section Meeting on October 6, 2001 at Texas Christian University, TX. This poster received one of the Outstanding Research Presentation Awards at the Fall 2001 Texas Section APS Meeting (<http://www.aps.org/units/tsaps/awards/student/recipients.cfm>).
86. *“A Study of Gold-Gold Collisions from the PHENIX Experiment”*, Hugo Valle and Akhtar Mahmood, poster presented at the American Physical Society’s Fall 2001 Texas Section Meeting on October 6, 2001 at Texas Christian University, TX.
87. *“Data Analysis of Gold-Gold High Energy Collisions from the PHENIX Experiment at BNL Using ROOT”*, Hugo Valle, talk presented at Vanderbilt University’s HEP Laboratory, August 9, 2001.
88. *“ARP Research Progress Report”*, Akhtar Mahmood, poster presented to the Texas Advanced Research Program Site Review Team on their visit to UTPA on July 24, 2001.
89. *“ARP Research Results: Search for Charmed Baryons Using the CLEO Data”*, Edward Wagner and Akhtar Mahmood, talk presented a talk to the Texas Advanced Research Program (ARP) Team on their Site Visit to UTPA on July 24, 2001.
90. *“Detecting Subatomic Particles from Large Datasets”*, Akhtar Mahmood, poster presented at the 13th Annual Conference of Rio Grande Valley

Science Association, February 3, 2001 held at the University of Texas – Pan American.

91. “*A Periodic Table of Subatomic Particles*”, Akhtar Mahmood, poster presented at the 13th Annual Conference of Rio Grande Valley Science Association, February 3, 2001, held at the University of Texas – Pan American.
92. “*Detecting Subatomic Particles from Large Datasets*”, Allan Figueroa, Hugo Valle, Ida Trevino and Akhtar Mahmood, poster presented at the 13th Annual Conference of Rio Grande Valley Science Association, February 3, 2001 held at the University of Texas – Pan American.
93. “*A Periodic Table of Subatomic Particles*”, Allan Figueroa and Akhtar Mahmood, poster presented at the 13th Annual Conference of Rio Grande Valley Science Association, February 3, 2001 held at the University of Texas – Pan American.
94. “*Pad-Chamber Studies of the PHENIX Detector at BNL*”, Hugo Valle, talk presented at Vanderbilt University’s HEP Laboratory, August 10, 2000.
95. “*Cosmic Ray Muon Detector R&D*”, Ruben Ybarra, talk presented at Vanderbilt University’s HEP Laboratory, August 10, 2000.
96. “*BBC and the ZDC Performance of the PHENIX Detector*”, Hugo Valle, talk presented at the 1st Convention of the Relativistic Heavy Ion Collider (RHIC), Brookhaven National Laboratory (BNL), August 8, 2000.
97. “*Search for New Charmed Baryons at CESR-CLEO-IP*”, Xavier-Rojas Garcia and Akhtar Mahmood, talk presented at the 2000 LSAMP Annual Student Research Conference, held at UT-El Paso, July 2000.
98. “*High Energy Physics Research at CLEO*”, Akhtar Mahmood, talk presented to a selected group of high school teacher and students from the McAllen Memorial High School on June 15, 2000 at the department of physics at UTPA, Texas.
99. “*Creating Mini-Big Bangs using Particle Accelerators*”, Akhtar Mahmood, invited talk presented at a Physics Seminar at SUNY-Buffalo State on June 9, 2000 at Buffalo, New York.
100. “*Confirming Evidence of the $\Xi_c^{+/-}$ Charmed Baryon in the $\Xi^- \pi^+ \pi^+$ Decay Mode at CLEO*”, Xavier Garcia-Rojas and Akhtar Mahmood, talk presented at the High Energy Physics Laboratory at UTPA, May 4, 2000.
101. “*Confirming Evidence of the $\Xi_c^{+/-}$ Charmed Baryon in the $\Xi^0 \pi^+ \pi^0$ Decay Mode at CLEO*”, Anthony M. Martinez and Akhtar Mahmood, talk presented at the High Energy Physics Laboratory at UTPA, May 4, 2000.
102. “*SU(N) Flavor Symmetry Representation of Beauty Mesons and Baryons*”, Akhtar Mahmood, talk presented at the 2000 Annual APS Meeting on May 2, 2000 at Long Beach, CA.
103. “*A Search for a New Charmed Baryon*”, Xavier-Rojas Garcia and Akhtar Mahmood, talk presented a talk at the Annual UTPA Louis Stokes Alliance for Minority Participation (LSAMP) Conference, on April 28, 2000 at UTPA.
104. “*Applications of Group Theory in Particle Physics*”, Akhtar Mahmood, invited talk presented at the Mathematics Departmental Seminar at UTPA on April 27, 2000.
105. “*Exploring the Origin of the Universe*”, Akhtar Mahmood, invited talk presented at a Physics Seminar at Western Missouri State University on March 28, 2000.
106. “*Evidence of Heavy Flavored Baryons at CESR-CLEO IP*”, Akhtar Mahmood, talk presented at the University Faculty Colloquium Series at UTPA on March 21, 2000.
107. “*Detection of Subatomic Particles from an Electron-Positron Collider*”, Akhtar Mahmood, invited talk presented at a Graduate Physics Seminar at St. John’s University, New York, on February 15, 2000.
108. “*Measuring the Acceleration of Gravity using Photo-gate Sensors*”, Akhtar Mahmood, talk presented at the 12th Annual Conference of the Rio Grande Valley Science Association – Technology for the New Millennium on February 5th, 2000, Texas.
109. “*Research Programs at the Department of Physics & Geology*”, Akhtar Mahmood, talk presented at the UTPA Day on October 30, 1999, held at the University of Texas – Pan American, Texas.
110. “*Research Collaboration between the CLEO Collaboration and the University of Texas – Pan American (A Hispanic-Serving Minority Institution)*”, Akhtar Mahmood, talk presented at the CLEO Collaboration meeting on October 16, 1999 at Cornell University, New York.

111. “*Evidence of New Subatomic Particles at CESR-CLEO II*”, Akhtar Mahmood, talk presented at the UTPA-UTB joint Physics Seminar Series on September 24, 1999 at University of Texas – Pan American, Texas.
112. “*Heavy Flavor Spectroscopy at CESR-CLEO II*”, Akhtar Mahmood, talk presented at the CLEO monthly meeting on September 18, 1999 at Cornell University, New York.
113. Attended via invitation and participated at the XIX International Symposium on Lepton and Photon Interactions at High Energies from August 8 –14, 1999, at Stanford University, California. Took turns along with other CLEO members at the conference to answer any questions about the CLEO experiment during the poster sessions.
114. “*Observation of Several New Charmed-Strange Baryons at CESR-CLEO II*”, Akhtar Mahmood, talk presented at the Physics Departmental Seminar at SUNY-Albany on July 15, 1998 at Albany, New York.
115. “*Particle Physics and Beyond*”, Akhtar Mahmood, invited talk presented at a Physics Colloquium at Hartwick College, New York on March 23, 1998.
116. “*Search for Two P-Wave (Orbitally Excited) Charmed Strange Baryons Ξ_{c1}^{**0} and Ξ_{c1}^{**+}* ”, Akhtar Mahmood, talk presented at the APS (American Physical Society) Centennial Meeting on March 22, 1999 at Atlanta, Georgia.
117. “*Heavy Flavor Spectroscopy at CESR-CLEO II*”, Akhtar Mahmood, invited talk presented at a Physics Seminar at SUNY-Oneonta, New York on March 20, 1998.
118. “*New Particle Discoveries at CESR-CLEO*”, Akhtar Mahmood, invited talk presented at the Annual Sigma Xi Convention on March 15 at Albany, New York, 1998.
119. “*From Standard Model to Dark Matter*”, Akhtar Mahmood, talk presented at the Physics Graduate Seminar Series at SUNY-Albany, New York on February 24, 1998.
120. “*Particle Physics and Mankind*”, Akhtar Mahmood, invited talk presented at a Physics Seminar at South Georgia College on January 27, 1998.
121. “*Confirming evidence of the spin 3/2 p-wave charmed-strange baryon, Ξ_{c1}^{**0} decaying into $\Xi_c^{*+} \pi^-$* ”, Akhtar Mahmood, talk presented at the Charmed Baryon PTA Meeting on January 23, 1998 at Cornell University, New York.
122. “*Observation of a possible spin 1/2 p-wave charmed-strange baryon, Ξ_{c1}^{**+} decaying into $\Xi_c^{0/} \pi^+$* ”, Akhtar Mahmood, talk presented at the Charmed Baryon PTA (Physics Topic Analysis) Meeting on January 18, 1998 at Cornell University, New York.
123. “*Observation of a possible spin 1/2 p-wave charmed-strange baryon, Ξ_{c1}^{**0} decaying into $\Xi_c^{+} \pi^-$* ”, Akhtar Mahmood, talk presented at the Charmed Baryon PTA Meeting on September 12, 1997 at Cornell University, New York.
124. “*SU(N) Flavor, Spin and Color Symmetry of S- and P-Wave Mesons and Baryons*”, Akhtar Mahmood, talk presented at the High Energy Physics Seminar Series at SUNY-Albany, New York on July 17, 1997.
125. “*Confirming evidence of a spin 3/2 p-wave charmed-strange baryon, Ξ_{c1}^{**+} decaying into $\Xi_c^{*0} \pi^+$* ”, Akhtar Mahmood, talk presented at the Charmed Baryon PTA Meeting on June 1, 1997 at Cornell University, New York.
126. “*The Role of Superconducting Magnets in High Energy Physics Experiments*”, Akhtar Mahmood, talk presented at the High Energy Physics Seminar Series at SUNY-Albany, New York on April 30, 1997.
127. “*Observation of two new spin 1/2 symmetric charmed-strange baryons at CESR-CLEO II*”, Akhtar Mahmood, talk presented at the APS Meeting on April 20, 1997 at Washington D.C.
128. “*Observation of a new spin 1/2 symmetric charmed-strange baryon, Ξ_c^{+} (csu) of the SU(4) 20-plet*”, Akhtar Mahmood, talk presented at the High Energy Physics Seminar Series on October 10, 1996 at SUNY-Albany, New York.
129. “*Evidence of a spin 1/2 symmetric charmed-strange baryon, $\Xi_c^{0/}$ decaying into $\Xi_c^0 \gamma$* ”, Akhtar Mahmood, talk presented at the Charmed Baryon PTA Meeting on September 6, 1996 at Cornell University, New York.

130. *“Further evidence of the spin 1/2 symmetric charmed-strange baryon, $\Xi_c^{+/-}$ in new decay modes”*, Akhtar Mahmood, talk presented at the CLEO Physics Fest on June 23, 1996 at Cornell University, New York.
131. *“Search for a Narrow State Decaying into $\Xi_c^+ \gamma$ ”*, Akhtar Mahmood, talk presented at the APS & AAPT Meeting on May 5, 1996 at Indianapolis, Indiana.
132. *“Observation of a new spin 1/2 symmetric charmed-strange baryon, $\Xi_c^{+/-}$ at CESR-CLEO II”*, Akhtar Mahmood, talk presented at the DOE HEP Site Visit to on February 7, 1996 at SUNY-Albany, New York.
133. *“Evidence of the spin 1/2 symmetric charmed-strange baryon, $\Xi_c^{+/-}$ decaying into $\Xi_c^+ \gamma$ ”*, Akhtar Mahmood, talk presented at the CLEO Physics Fest on December 14, 1995 at Cornell University, New York.
134. *“Observation of the spin 1/2 charmed-strange baryon, $\Xi_c^{+/-}$ decaying into $\Xi_c^+ \gamma$ ”*, Akhtar Mahmood, talk presented at the Charmed Baryon PTA Meeting on October 25, 1995 at Cornell University, New York.
135. *“Search for a spin 1/2 charmed baryon, $\Xi_c^{+/-}$ at CESR-CLEO II”*, Akhtar Mahmood, talk presented at the CLEO Physics Fest on June 13, 1995 at Cornell University, New York.
136. *“First observation of two new spin 3/2 charmed baryons, Ξ_c^{*0} and Ξ_c^{*+} at CLEO II”*, Akhtar Mahmood, talk presented at the CLEO Meeting on April 8, 1995 at Cornell University, New York.
137. *“A Survey of proton-antiproton, proton-proton, electron-positron, and electron-proton colliders”*, Akhtar Mahmood, invited talk presented on April 12, 1995 at the Graduate Physics Seminar at SUNY-Albany, New York.
138. *“Evidence of two new spin 3/2 charmed baryons, Ξ_c^{*0} and Ξ_c^{*+} ”*, Akhtar Mahmood, invited talk presented at the Charmed Baryon PTA meeting on March 10, 1995 at Cornell University, New York.
139. *“SU(3) and SU(4) Symmetry in Particle Physics”*, Akhtar Mahmood, invited talk presented on December 2, 1994 at the Graduate Physics Seminar Series at SUNY-Albany, New York.
140. *“Modern Particle Accelerators”*, Akhtar Mahmood, invited talk presented on February 11, 1994 at the High Energy Physics Seminar Series at SUNY-Albany, New York.
141. *“Development of Particle Accelerators”*, Akhtar Mahmood, talk presented on November 21, 1993 at the High Energy Physics Seminar Series at SUNY-Albany, New York.
142. *“A Survey of Particle Accelerators”*, Akhtar Mahmood, talk presented on November 17, 1993 at the Graduate Physics Seminar Series at SUNY-Albany, New York.
143. *“Results from the Aerogel Cerenkov Threshold System”*, Akhtar Mahmood, talk presented at the CLEO PID (Particle Identification) meeting on June 27, 1993 at Cornell University, New York.