STUDENT TALKS AND POSTER PRESENTATIONS GIVEN AT NATIONAL, REGIONAL, STATE, AND LOCAL MEETINGS/CONFERENCES

TOTAL NUMBER OF PRESENTATIONS BY PHYSICS MAJORS (2008 – PRESENT) – 74

1. "*Open Science Grid (OSG) Tier2 Grid Site at Bellarmine University for the LSST (Large Synoptic Survey Telescope) Project*", Russell Sexton, Stephen Denny, Dr. Akhtar Mahmood, and Dr. M. Saleem, poster presented at the 103rd Annual KAS (Kentucky Academy of Science) Meeting at Murry State University, Nov. 3-4, 2017. Russell Sexton received the KAS First Prize Undergraduate Research Award at the Computer & Information Science category.

2. "*Hands-on Robotics Lab at Bellarmine University*", Christopher Steitz, Stephen Brown, and Dr. Akhtar Mahmood, talk, poster presented at the 103rd Annual KAS (Kentucky Academy of Science) Meeting at Murry State University, Nov. 3-4, 2017.

3. "*Data Mining in Astronomy Using Exoplanet Data from the Space and Ground-based Telescopes*", Joseph Erskine, Jordan Dowdy, Stephen Denny, Dr. M. Saleem, and Dr. Akhtar Mahmood, talk presented at the 103rd Annual KAS (Kentucky Academy of Science) Meeting at Murry State University, Nov. 3-4, 2017 Joseph Erskine received the KAS First Prize Undergraduate Research Award at the Science Education category.

4. "*Parallel Computing with a Raspberry-Pi (RPi) Beowulf Cluster Using Open MPI*", Zachary Eckert, Shawn Frazier, Carlos Galindo, and Dr. Akhtar Mahmood, poster presented at the 2017 Celebration of Student Research and Creativity, held at BU, April 18, 2017.

5 "*Implementing Semi-Autonomous Robotics on a Hexapod Platform*", Brooke Kennedy, Stephen Brown, and Dr. Akhtar Mahmood, poster presented at the 2017 Celebration of Student Research and Creativity, held at BU, April 18, 2017.

6. "*Alternative Energy Lab Projects in the Introductory Undergraduate Physics Curriculum*", Douglas J. Kelly, Joseph Erskine, and Dr. Akhtar Mahmood, poster presented at the 2017 Celebration of Student Research and Creativity, held at BU, April 18, 2017.

7. "*Performance Studies of Parallel Computations Using Beowulf Clusters with Different CPU Speed, Linux OS, and MPI Middleware*", Jorden Matty, Mark Pilcher, Zachary Eckert, Christopher Steitz, Dr. Akhtar Mahmood and Dr. M. Saleem, poster presented at the 2017 Celebration of Student Research and Creativity, held at BU, April 18, 2017.

8. "*Beyond the Standard Model (BSM)- Search for the Z-Prime Boson Using the Data from the ATLAS Experiment at CERN*", Veronica Winters, Dr. Akhtar Mahmood and Dr. M. Saleem, poster presented at the 2017 Celebration of Student Research and Creativity, held at BU, April 18, 2017.

9. "*Parallel Computing with a Raspberry-Pi (RPi) Beowulf Cluster Using Open MPI*", Zachary Eckert, Shawn Frazier, and Dr. Akhtar Mahmood, poster presented at the 31st Annual National Conference on Undergraduate Research (NCUR), held at University of Memphis, April 6-8, 2017.

10. "*Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider(LHC) at CERN*", Veronica Winters, Dr. Akhtar Mahmood and Dr. M. Saleem, talk presented at the 31st Annual National Conference on Undergraduate Research (NCUR), held at University of Memphis, April 6-8, 2017.

11. *"Study of Exoplanet Data from the Kepler Telescope (Updated Results)", Stephen Denny, Russell Sexton, Mark Pilcher, Christopher Steitz, Joseph Erskine, Dr. Akhtar Mahmood and Dr. M. Saleem, talk presented at the 31st Annual National Conference on Undergraduate Research (NCUR), held at University of Memphis, April 6-8, 2017.*

12. *"Implementing Semi-Autonomous Robotics on a Hexapod Platform",* Brooke Kennedy, Stephen Brown, and Dr. Akhtar Mahmood, poster presented at the 31st Annual National Conference on Undergraduate Research (NCUR), held at University of Memphis, April 6-8, 2017.

13. *"Parallel Computing in the Undergraduate Physics Curriculum using Beowulf Clusters",* Jorden Matty, Mark Pilcher, Zachary Eckert, Dr. M. Saleem, and Dr. Akhtar Mahmood, talk presented at the 2017 KAPT (Kentucky Association of Physics Teachers) Meeting, held at Bluegrass Community and Technical College, March 11, 2017.

14. *"Latest Results on Exoplanets from the Space and Ground-Based Telescopes",* Stephen Denny, Christopher Steitz, Russell Sexton, Dr. M. Saleem and Dr. Akhtar Mahmood, talk presented at the 2017 KAPT (Kentucky Association of Physics Teachers) Meeting, held at Bluegrass Community and Technical College, March 11, 2017.

15. *"Cost-Effective Table-Top High Performance Computing with Raspberry-Pi (RPi) Processors",* Zachary Eckert, Shawn Frazier, Carlos Galindo and Dr. Akhtar Mahmood, talk presented at the 2017 KAPT (Kentucky Association of Physics Teachers) Meeting, held at Bluegrass Community and Technical College, March 11, 2017.

16. *"Alternative Energy Lab Projects in the Introductory Undergraduate Physics Curriculum",* Joseph Erskine, Douglas J. Kelly, and Dr. Akhtar Mahmood, talk presented at the 2017 KAPT (Kentucky Association of Physics Teachers) Meeting, held at Bluegrass Community and Technical College, March 11, 2017.

17. *"Parallel Computing with a Raspberry-Pi (RPi) Cluster Using Open MPI",* Zachary Eckert, Shawn Frazier, and Dr. Akhtar Mahmood, poster presented at the 102nd Annual KAS Meeting, held at UofL, Nov. 4-5, 2016- Zachary Eckert received the Second Prize KAS Research Award in the Computer Science category.

18. *"Implementing Semi-Autonomous Robotics on a Hexapod Platform",* Brooke Kennedy, Stephen Brown, and Dr. Akhtar Mahmood, poster presented at the 102nd Annual KAS Meeting, held at UofL, Nov. 4-5, 2016- Brooke Kennedy received the First Prize KAS Research Award in the Engineering category.

19. *"Alternative Energy Lab Projects in the Introductory Undergraduate Physics Curriculum",* Douglas J. Kelly, Joseph Erskine, and Dr. Akhtar Mahmood, poster presented at the 102nd Annual KAS Meeting, held at UofL, Nov. 4-5, 2016- Douglas Kelly received the Second Prize KAS Research Award in the Science Education category.

20. *"Performance Studies of Parallel Computations Using Beowulf Clusters with Different CPU Speed, Linux OS, and MPI Middleware",* Jorden Matty, Mark Pilcher, Zachary Eckert, Christopher Steitz, and Dr. Akhtar Mahmood, talk presented at the 102nd Annual KAS Meeting, held at UofL, Nov. 4-5, 2016.

21. *"Study of Exoplanet Data from the Kepler Telescope",* Stephen Denny, Russell Sexton, and Dr. Akhtar Mahmood, talk presented at 102nd KAS Meeting, at UofL, Nov. 4-5, 2016.

22. *"Study of Kepler Exoplanet Data",* Stephen Denny, Russell Sexton, Dr. Akhtar Mahmood, and Dr. M Saleem, poster presented at the American Physical Society (APS) National Mentoring Community Conference, held at Houston, Texas, Oct. 21–23, 2016. APS paid for the travel expenses for this talk.

23. "*Study of Exoplanet Data from the Kepler Telescope*", Stephen Denny, Nicholas Rockstroh, Joseph Erskine, and Dr. Akhtar Mahmood, poster presented at the 2016 Celebration of Student Research and Creativity Day at Bellarmine University on April 19, 2016;

24. "*Table of Ground-State Subatomic Particles*", Jackson Sherman and Dr. Akhtar Mahmood, poster presented at the 2016 Celebration of Student Research and Creativity Day at Bellarmine University on April 19, 2016.

25. "*Study of Exoplanet Data from the Space and Ground-Based Telescopes*", Stephen Denny, Nicholas Rockstroh, Russell Sexton, and Christopher Steitz, and Dr. Akhtar Mahmood, talk presented at the 2016 American Astronomical Society Kentucky Area Meeting, held at EKU on April 9, 2016.

26. "*Study of Exoplanet Data from the Space and Ground-Based Telescopes*", Stephen Denny, Nicholas Rockstroh, Russell Sexton, and Christopher Steitz, and Dr. Akhtar Mahmood, talk presented at the 2016 Annual KAPT Meeting held at Centre College on March 12, 2016.

27. "*Study of Exoplanet Data from Kepler*", Stephen Denny, Nicholas Rockstroh, and Dr. Akhtar Mahmood, talk presented at the 101th Kentucky Academy of Science (KAS) Annual Meeting held at EKU on November 14, 2015.

28. *"Table of Ground-State Subatomic Particles",* Jackson Sherman, and Dr. Akhtar Mahmood, poster presented at the 101th Kentucky Academy of Science (KAS) Annual Meeting held at EKU on November 14, 2015.

29. "*Hands-on Robotics Lab at Bellarmine University",* Tyler Martinez, Jackson Sherman, Michael Bowden, Amber Byrum, Jorden Matty, Dr. Akhtar Mahmood and Mr. Stephen Brown, poster (with hands-on demonstration) presented at 15th Annual Celebration of Undergraduate Research Poster Session at Bellarmine University on April 21, 2015.

30. "*STEM Scholars Program and the Eureka Learning Community at Bellarmine University",* Michael Bowden, Amber Byrum, Jackson Sherman, Benjamin Flint, and Dr. Akhtar Mahmood, poster presented at 15th Annual Celebration of Undergraduate Research Poster Session at Bellarmine University on April 21, 2015.

31. "*STEM Scholars Program and the Eureka Learning Community at Bellarmine University",* Michael Bowden and Dr. Akhtar Mahmood, talk presented at the Next Generation Physics Teaching Conference, held at Eastern Kentucky University on March 13-14, 2015.

32. "*Robotics in the Undergraduate Physics Curriculum with an Open Lab Approach",* Michael Bowden, Dr. Akhtar Mahmood and Stephen Brown, talk presented at the Next Generation Physics Teaching Conference, held at Eastern Kentucky University on March 13-14, 2015.

33. "*Search for the Z-Prime Boson with the Hiperwall Visualization System using the LHC-ATLAS Datasets",* Amber Byrum, Tyler Martinez, Dr. Akhtar Mahmood, poster presented at the Kentucky Academy of Science 100th Annual Meeting, Lexington, KY, November 15, 2014.

34. *"Bellarmine University's Hiperwall (Highly Interactive Parallelized Display Wall) Visualization System for Big Data Research*", Amber Byrum, Tyler Martinez, Ben Flint and Dr. Akhtar Mahmood, poster presented at the Kentucky Academy of Science 100th Annual Meeting, Lexington, KY, November 15, 2014. Amber Byrum received the First Prize at the Undergraduate Research Competition in the Computer and Information Sciences Category.

35. *"The STEM Scholars Program and the Eureka Learning Community at Bellarmine University",* Michael Bowden, Ben Flint, Jackson Sherman and Dr. Akhtar Mahmood, Bellarmine University, poster presented at the Kentucky Academy of Science 100th Annual Meeting, Lexington, KY, November 15, 2014.

36. *"Implementation of Bellarmine University's Advanced Visualization and Computational Lab (AVCL) using Hiperwall (Highly Interactive Parallelized Display Wall.*", Amber Byrum, Tyler Martinez, Ben Flint and Dr. Akhtar Mahmood, poster presented at the 2014 Bellarmine University's Heritage Dinner Poster Session, Louisville, KY, April 13, 2014.

37. *"Z-Prime Boson Data Analysis Studies with the Hiperwall Visualization System using the LHC-ATLAS Datasets"*, Bryan Fagan and Dr. Akhtar Mahmood, poster presented at the 14th Annual Undergraduate Research Week at Bellarmine University on April 14, 2014.

38. *"Implementation of Bellarmine University's Advanced Visualization and Computational Lab (AVCL) using Hiperwall (Highly Interactive Parallelized Display Wall."*, Amber Byrum, Tyler Martinez, Ben Flint and Dr. Akhtar Mahmood, poster presented at the 14th Annual Bellarmine University Undergraduate Scholarship Week Poster Session, Louisville, KY, April 14, 2014.

39. *"Bellarmine University's Hiperwall (Highly Interactive Parallelized Display Wall) Visualization System for Research and Education"*, Tyler Martinez, Bryan Fagan, Dr. Akhtar Mahmood, talk presented at the 2014 Annual KAPT Meeting at Bellarmine University on March 15, 2014.

40. *"Z-Prime Boson Analysis Studies with the Hiperwall Visualization System Using the LHC-ATLAS Datasets"*, Bryan Fagan, Dr. Akhtar Mahmood, Tyler Martinez, talk presented at the 2014 Annual KAPT Meeting at Bellarmine University on March 15, 2014.

41. *"Open Science Grid (OSG) Tier3 Grid Supercomputer at Bellarmine University"*, Bryan Fagan, Tyler Martinez, and Dr. 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.

42. *"Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider (LHC) at CERN"*, Bryan Fagan, Tyler Martinez, and Dr. Akhtar Mahmood, poster presented at the 99th Annual KAS Kentucky at Morehead State University on November 9, 2013.

43. *"Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider (LHC) at CERN"*, Bryan Fagan, Tyler Martinez, and Dr. 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. This was one of only two posters selected by KY EPSCoR for participation at the national EPSCoR Science Idol Research Competition at this National EPSCoR Conference.

44. *"Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider (LHC) at CERN"*, Bryan Fagan, Tyler Martinez, and Dr. Akhtar Mahmood, poster presented at the Kentucky Annual EPSCoR Conference at UofL on October 17, 2013.

45. *"Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider(LHC) at CERN"*, Bryan Fagan and Dr. Akhtar Mahmood, invited poster presented at the 2013 Bellarmine University Heritage Dinner, April 17, 2013.

46. *"Discovery of the Higgs Boson at the Large Hadron Collider (LHC)"*, Nick Hushebeck, Bryan Fagan and Dr. Akhtar Mahmood, poster presented at the 13th Annual Undergraduate Research Week at Bellarmine University on April 15, 2013.

47. *"Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider(LHC) at CERN"*, Bryan Fagan and Dr. 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.

48. *"Search for the Z-Prime Boson using the ATLAS Detector at the Large Hadron Collider(LHC) at CERN"*, Bryan Fagan and Dr. Akhtar Mahmood, poster presented at the 2012 KAS (Kentucky Academy of Science) meeting held at Eastern Kentucky University on October 20, 2012.

49. "*Computational Physics using Parallel Cluster Computing*", Meghan Allen and Dr. Akhtar Mahmood, talk presented at the 97th KAS (Kentucky Academy of Science) meeting held at Eastern Kentucky University on October 20, 2012. Meghan Allen received the Second Prize at the Undergraduate Research Competition in the Science Education Paper Session.

50. *"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 Dr. Akhtar Mahmood, presented a poster at the 12th Annual Undergraduate Research Week at Bellarmine University on April 18, 2012.

51. "*Building a Fast Parallel Cluster Computer Using Slow PCs",* Jovan Andjelich, Sean Dockery, Meghan Allen, Nick Hushebeck, Dr. Akhtar Mahmood and Faiz Ahmad, poster presented at the 12th Annual Undergraduate Research Week at Bellarmine University on April 18, 2012.

52. *"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 Dr. Akhtar Mahmood, poster presented at the 2012 Annual KAPT meeting held at Western Kentucky University on March 17, 2012.

53. "*Computational Physics Using Parallel Cluster Computing",* Jovan Andjelich, Dr. Akhtar Mahmood, Nick Hushebeck, and Meghan Allen, talk presented at 2012 Annual KAPT (Kentucky Association of Physics Teacher) meeting held at Western Kentucky University on March 17, 2012.

54. *"The ATLAS Tier3 Grid Supercomputer at Bellarmine University",* Meghan Allen and Dr. Akhtar Mahmood presented a poster at the at 97th Annual KAS meeting held at Murray State University on November 5, 2011. Meghan Allen received the First Prize at the Undergraduate Research Competition in the Computer and Information Sciences Poster Session.

55. *"Study of W and Z Bosons with ATLAS Monte-Carlo Data at CERN-LHC"*, Antonin Verlet-Banide and Dr. Akhtar Mahmood, talk given at the 97th Annual KAS Meeting held at Murray State University on November 5, 2011.

56. *"Monte-Carlo Simulation Studies using the ATLAS Detector at the Large Hadron Collider (LHC) at CERN",* Sean Dockery and Dr. Akhtar Mahmood, poster presented at the 97th Annual KAS meeting held at Murray State University on November 5, 2011.

57. "*Simulation and Testbed Studies Aimed at Detecting Earth-like Exoplanets with NASA's Next Generation Space-based SIM-Lite Astrometric Observatory*", Ben Draper, Richard Jelsma, Dr. Akhtar Mahmood, Dr. Bijan Nemati(Jet Propulsion Lab), talk given at the 2011 Annual American Physical Society (APS) Meeting, held at Anaheim, CA, April 30-May 3, 2011.

58. "*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, Dr. Akhtar Mahmood, Dr. Bijan Nemati(Jet Propulsion Lab), talk given at the 2011 Annual KAPT Meeting at Eastern Kentucky University, March 19, 2011.

59. "*Monte-Carlo Simulation and Data Analysis using the ATLAS Detector at the CERN-LHC (Large Hadron Collider)",* Drew Miles and Cody Haycraft, and Dr. Akhtar Mahmood, invited poster presented at the 2011 Bellarmine University Heritage Dinner, April 14, 2011.

60. *"The ATLAS Tier3 Supercomputer at Bellarmine University",* Jovan Andjelich, Benjamin Draper, Drew Miles, Sean Dockery, and Dr. 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.

61. "*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 Dr. Akhtar Mahmood, poster presented at the 11th Annual Undergraduate Research Week, April 10-17, 2011.

62. "*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, Dr. Akhtar Mahmood, Dr. Bijan Nemati(Jet Propulsion Lab), Western Kentucky University (WKU) on Nov. 13, 2010. Richard Jelsma received the First Prize at the Undergraduate Research Competition in the Physics & Astronomy Poster Session.

63. "*The Sphinx Beowulf Cluster Project at Bellarmine University*", Jovan Andjelich and Dr. Akhtar Mahmood, poster presented at the 96th KAS meeting at the Western Kentucky University (WKU) on Nov. 13, 2010. Jovan Andjelich received the First Prize at the Undergraduate Research Competition in the Computer and Information Sciences Poster Session.

64. "*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, Dr. Akhtar Mahmood, and Dr. Bijan Nemati (Jet Propulsion Lab), poster presented at the 10th Annual Undergraduate Research Week at Bellarmine University, April 11-18, 2010.

65. "*The Sphinx Beowulf Cluster Computing Project at Bellarmine University*", Dzmitry Miranovich, Christopher Tharp, Ben Draper, Antonio Castineira, Richard Jelsma, and Dr. 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.

66. "*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, Dr. Akhtar Mahmood,Dr. Bijan Nemati(Jet Propulsion Lab), talk given at the 2010 Annual KAPT Meeting at Centre College, March 13, 2010.

67. "*Measurement of Muon Flux and Muon Lifetime Using the Bellarmine Cosmic Ray Muon Detector*", Richard Jelsma, Ben Draper and Dr. Akhtar Mahmood, poster presented at the 95th Kentucky Academy of Science (KAS) Annual Meeting at NKU on November 14, 2009. Richard Jelsma received the First Prize at the Undergraduate Research Competition in the Physics & Astronomy Poster Session.

68. "*Mass Predictions of Charmed and Beauty Baryons*", Ben Draper and Dr. Akhtar Mahmood – presented at the 95th Kentucky Academy of Science (KAS) Annual Meeting at NKU on November 14, 2009. Ben Draper received the First Prize at the Undergraduate Research Competition in the Physics & Astronomy Presentation Session.

69. "*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, talk presented at the Spring 2009 KAPT (Kentucky Association of Physics Teacher) meeting held at Bellarmine University on March 7, 2009.

70. "*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.

71. "*Measurement of Muon Flux and Muon Lifetime Using the Bellarmine Cosmic Ray Muon Detector*", Ben Draper, Richard Jelsma, Yan Chen, and Dr. Akhtar Mahmood, invited poster presented at the 2009 Bellarmine University Heritage Dinner, April 21, 2009.

72. *"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.

73. *"Measurement of Muon Flux and Muon Lifetime Using the Bellarmine Cosmic Ray Muon Detector",* Ben Draper, Richard Jelsma, Yan Chen, and Dr. Akhtar Mahmood - poster presented by students at the at the 9th Undergraduate Research Week at Bellarmine University on April 14, 2009. <u>This poster was selected as one of the best research projects at poster competition</u>.

74. *"A Survey of Subatomic Particles with Charmed Quarks",* poster presented by my research student Zachary Kemper and Dr. Akhtar Mahmood, poster presented at the Eight Undergraduate Research Week Poster Session at Bellarmine University on April 14, 2008.