Scott Teige, Ph.D.
High Performance Computing Technical Lead

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Education

Ph.D., May 5, 1985
Department of Physics
Indiana University
Bloomington, IN 47405

M.S., Oct. 31 1983
Department of Physics
Indiana University
Bloomington, IN 47405

B.S., May 20, 1979
Department of Physics
University of Wisconsin
Milwaukee, WI 53201

Doctoral dissertation: A study of the D and E mesons in $\pi^- p \to K\overline{K}\pi n$ [73]

Employment History

2010-present	High Performance Computing Technical Lead, High Throughput Computing, UITS
2007-2010	Senior Analyst, High Performance Applications, UITS
2006-2007	Consultant, University Information Technology Services
1991-2006	Asst., Assoc., Senior Scientist, Dept. Physics, Indiana University
1991	Chester Davis Fellow, Dept. Physics, Indiana University
1991	Asst. Scientist, Dept, Physics, Rutgers University
1985-1991	Postdoctoral Fellow, Dept. Physics, Rutgers University
1980-1985	Research Assistant, Dept. Physics, Indiana University
1972-1980	Apprentice, Journeyman, Master Machinist, FAN Mfg.

Recent Activities

For the Grid Operations Center at Indiana University, 2010-Present:

- Leads a team of 2.5 FTE to maintain and operate the machines and services that enable the Open Science Grid to serve users where
- the team members are:

  - Alain Deximo
  - Marina Krenz
  - Tom Lee
  - Sarah Smiechen,
- the machines include:
  - 35 servers
  - 3 storage arrays,
- and the services include: (*Italics* indicate personal operational responsibility)
  - Information Management (OIM, *BDII*, *VOMS*),
  - Software Distribution (*Oasis*, Software Repositories),
  - Documentation (Homepages, MyOSG, TWiki),
  - Trouble Ticket/Tracking (Ticket, Ticket Exchange, JIRA),
  - Accounting and Monitoring (*RSV, reports*),
  - Job Submission/Management (Glidein, OSG_XD, *Condor Collectors.*)

For Indiana University, UITS, 2006-2010:

- Performed code migration, profiling and optimization for multiple users,
- Developed workflows for users with complex processing needs,
- Installed and maintained software packages on several platforms including VampirTrace, Boost and Aracne,
- Implemented and used multiple benchmark systems for I/O performance measurements,
- Developed utility and monitoring software for the Data Capacitor,
- Participated in the Bandwidth Challenge at SC-2007, Finishing First.

Research Activities

For Brookhaven National Laboratory Experiment 852, A search for mesons with unusual quantum numbers, 1991-2006:

- Participated in the design, specification and acquisition of the experimental apparatus
- Directed testing of detector prototypes and analyzed the resulting data
- Served as floor manager supervising construction, calibration and operation of a 3000-element lead glass calorimeter.

- Coordinated run activities responsible for scheduling all experimental activities and interactions with other laboratory groups and experiments.
- Served on the PhD committees of Jeff Gunter (currently at the Mayo Clinic) and Rob Lindenbusch (employed by the state of Indiana).
- Served on internal publication review committee and prepared publications and referee responses
- Managed the data archives on a High Performance tape storage system and large disk arrays and analyzed multi-terabyte data samples on purpose built computer clusters.

For Thomas Jefferson National Accelerator Facility Experiment E94-016, Radiative decays of the ϕ meson, 1994-present:

- Participated in the design, specification and acquisition of the experimental apparatus
- Supervised construction of the experiment and coordinated test runs
- Served as run supervisor coordinating experimental activities with accelerator operations
- Was interim spokesman as required
- Designed and built a computer cluster for analysis of the data
- Prepared publications and referee responses
- Served on the PhD committee of Craig Steffen (currently at the National Supercomputing Applications Center in Urbana IL).

For Fermi National Lab experiments E621 and E756, 1985-1990:

- Served as shift leader and supervised construction
- Directed daily activities up to six graduate students
- Supervised experimental operations
- Performed first pass data analysis on mainframe style computers
- Prepared publications and referee responses

Publications and talks

1. Rob Quick, Soichi Hayashi, Samy Meroueh, Mats Rynge, Scott Teige, Bo Wang and David Xu, "Building a Chemical-Protein Interactome on the Open Science Grid", Proceedings of Science, International Symposium on Grids and Clouds (ISGC) 2015, 2015.

2. Soichi Hayashi, Sandra Gesing, Rob Quick, Scott Teige, Carrie Ganote, Le-shin Wu, Elizabeth Prout. "Galaxy Based BLAST Submission to Open Science Grid Resources". International Symposium on Grids and Clouds 2014. Taipei, Taiwan. March 2014

3. B. Bockelman *et al.*, "OASIS: a data and software distribution service for Open Science Grid," J. Phys. Conf. Ser. **513**, 032013 (2014)

4. K. Gross *et al.*, "Open Science Grid (OSG) ticket synchronization: Keeping your home field advantage in a distributed environment," J. Phys. Conf. Ser. **396**, 062009 (2012)

5. S. Hayashi *et al.*, "The event notification and alarm system for the Open Science Grid operations center," J. Phys. Conf. Ser. **396**, 032105 (2012)

6. I. Sfiligoi *et al.*, "The benefits and challenges of sharing glidein factory operations across nine time zones between OSG and CMS," J. Phys. Conf. Ser. **396**, 032103 (2012)

7. G. Shen *et al.*, "A New Equation of State for Astrophysical Simulations," Phys. Rev. **C83**, 035802 (2010)

8. R. T. Jones, *et al.*, "Performance of the RADPHI detector and trigger in a high rate tagged photon beam," Nucl. Instrum. Meth. A **570**, 384 (2007)

9. A. R. Dzierba *et al.*, "A partial wave analysis of the $\pi^-\pi^-\pi^+$ and $\pi^-\pi^0\pi^0$ systems and the search for a $J^{PC} = 1^{-+}$ meson," Phys. Rev. D **73**, 072001 (2006) [arXiv:hep-ex/0510068].

10. S. Denisov *et al.*, "Studies of timing and amplitude properties for 2-m long scintillation counter with FEU-115M PMT's," IHEP-2005-35

11. A. R. Dzierba, D. Krop, M. Swat, S. Teige and A. P. Szczepaniak, "Reply to 'Comment on 'The evidence for a pentaquark signal and kinematic reflections'," Phys. Rev. D **71**, 098502 (2005).

12. A. R. Dzierba, R. Mitchell, A. P. Szczepaniak, M. Swat and S. Teige, "A search for $J^{PC} = 1^{-+}$ exotic mesons in the $\pi^-\pi^-\pi^+$ and $\pi^-\pi^0\pi^0$ systems," arXiv:hep-ex/0502022.

13. S. Denisov *et al.*, "Studies of magnetic shielding for phototubes," Nucl. Instrum. Meth. A **533**, 467 (2004).

14. S. Denisov *et al.*, "Systematic studies of timing characteristics for 2-m long scintillation counters," Nucl. Instrum. Meth. A **525**, 183 (2004).

15. A. R. Dzierba, D. Krop, M. Swat, S. Teige and A. P. Szczepaniak, "The evidence for a pentaquark signal and kinematic reflections," Phys. Rev. D **69**, 051901 (2004) [arXiv:hep-ph/0311125].

16. A. Chakravorty *et al.* [FNAL E756 Collaboration], "Measurement of decay parameters for $\Xi^- \to \Lambda\pi^-$ decay," Phys. Rev. Lett. **91**, 031601 (2003) [arXiv:hep-ex/0306047].

17. A. R. Dzierba *et al.*, "A study of the $\eta\pi^0$ spectrum and search for a $J^{PC} = 1^{-+}$ exotic meson," Phys. Rev. D **67**, 094015 (2003) [arXiv:hep-ex/0304002].

18. A. P. Szczepaniak, M. Swat, A. R. Dzierba and S. Teige, "Study of the $\eta\pi$ and $\eta'\pi$ spectra and interpretation of possible exotic $J^{PC} = 1^{-+}$ mesons," Phys. Rev. Lett. **91**, 092002 (2003) [arXiv:hep-ph/0304095].

19. S. Denisov *et al.*, "Characteristics of the TOF counters for GlueX experiment," Nucl. Instrum. Meth. A **494**, 495 (2002).

20. P. Eugenio *et al.* [BNL-E852 Collaboration], "Observation of a new $J^{PC} = 1^{+-}$ isoscalar state in the reaction $\pi^- p \to \omega\eta n$ at 18-GeV/c," Phys. Lett. B **497**, 190 (2001) [arXiv:hep-ph/0010337].

21. J. Gunter *et al.* [E852 Collaboration], "A partial wave analysis of the $\pi^0\pi^0$ system produced in $\pi^- p$ charge exchange collisions," Phys. Rev. D **64**, 072003 (2001) [arXiv:hep-ex/0001038]

22. G. S. Adams *et al.*, "Experimental evidence for hadroproduction of exotic mesons," Nucl. Phys. A **680**, 335 (2000).

23. K. B. Luk *et al.* [E756 Collaboration], "Search for direct CP violation in non-leptonic decays of charged Ξ and Λ hyperons," Phys. Rev. Lett. **85**, 4860 (2000) [arXiv:hep-ex/0007030].

24. J. J. Manak *et al.* [E852 Collaboration], "Partial-wave analysis of the $\eta\pi^+\pi^-$ system produced in the reaction $\pi^- p \to \eta\pi^+\pi^- n$ at 18-GeV/c," Phys. Rev. D **62**, 012003 (2000) [arXiv:hep-ex/0001051].

25. S. Teige *et al.* [E852 Collaboration], "Dynamics of the decay $\eta \to 3\pi^0$," arXiv:hep-ex/0002064.

26. K. B. Luk *et al.* [E756 Collaboration], "Examining CP symmetry in strange baryon decays," arXiv:hep-ex/0005004.

27. S. Teige *et al.* [E852 Collaboration], "Properties of the $a_0(980)$ meson," Phys. Rev. D **59**, 012001 (1999) [arXiv:hep-ex/9608017].

28. G. S. Adams *et al.* [E852 Collaboration], "Observation of a new $J^{PC} = 1^{-+}$ exotic state in the reaction $\pi^- p \to \pi^+\pi^-\pi^- p$ at 18-GeV/c," Phys. Rev. Lett. **81**, 5760 (1998).

29. A. Brunner *et al.*, "A Cockcroft-Walton base for the FEU84-3 photomultiplier tube," Nucl. Instrum. Meth. A **414**, 466 (1998).

30. A. W. Chan *et al.* [E756 Collaboration], "Measurement of the properties of the $\overline{\Omega^+}$ and Ω^- hyperons," Phys. Rev. D **58**, 072002 (1998).

31. Z. Bar-Yam *et al.*, "A cylindrical drift chamber with azimuthal and axial position readout," Nucl. Instrum. Meth. A **386**, 235 (1997).

32. R. R. Crittenden *et al.*, "A 3000 element lead-glass electromagnetic calorimeter," Nucl. Instrum. Meth. A **387**, 377 (1997).

33. T. Adams *et al.*, "Design and performance of a cesium iodide detector," Nucl. Instrum. Meth. A **368**, 617 (1996).

34. J. Gunter *et al.* [E852 Collaboration], "Analysis of the $\pi^0\pi^0$ final state in the $\pi^- p$ reactions at 18.3-GeV/c," arXiv:hep-ex/9609010.

35. J. M. LoSecco *et al.*, "Search for exotic mesons in $\pi^- p$ interactions at 18-GeV/c," Prog. Part. Nucl. Phys. **36**, 437 (1996) [arXiv:hep-ex/9510004].

36. Y. Zou *et al.*, "New measurement of the amplitude of the CP conserving decay $K_S^0 \to \pi^+\pi^-\pi^0$," Phys. Lett. B **369**, 362 (1996).

37. Z. Bar-Yam *et al.*, "A Scintillation detector of unique geometry," Nucl. Instrum. Meth. A **357**, 95 (1995).

38. N. M. Cason *et al.*, "Study of the $\eta\pi^-$, $\eta\pi^0$ and $\eta\eta$ systems in $\pi^- p$ interactions at 18-GeV/c," PRINT-95-238 (NOTRE-DAME)

39. S. U. Chung *et al.* [E852 Collaboration], "Extension for E852," BNL-PROPOSAL-852-ADD

40. S. Teige [E852 Collaboration], "The Brookhaven National Laboratory E852 lead glass calorimeter system," *Prepared for 5th International Conference on Calorimetry in High-energy Physics, Upton, NY, 25 Sep - 1 Oct 1994*

41. G. B. Thomson *et al.*, "Measurement of the amplitude of the CP conserving decay $K_S^0 \to \pi^+\pi^-\pi^0$," Phys. Lett. B **337**, 411 (1994).

42. Y. Zou *et al.*, "Search For CP Violation In The Decay $K_S^0 \to \pi^+\pi^-\pi^0$," Phys. Lett. B **329**, 519 (1994).

43. B. B. Brabson *et al.*, "A Study of two prototype lead glass electromagnetic calorimeters," Nucl. Instrum. Meth. A **332**, 419 (1993).

44. K. B. Luk *et al.*, "Polarization of Ω^- hyperons produced in 800-GeV proton - beryllium collisions," Phys. Rev. Lett. **70**, 900 (1993).

45. J. Dory *et al.*, "Precise measurement of the Xi^- magnetic moment," Phys. Rev. Lett. **68**, 768 (1992).

46. J. Dowd *et al.*, "Comparison of PWA results of $K^+K_S^0\pi^-$ final states produced in 8-GeV/c K^-p, π^-p and $\overline{p}p$ interactions," UMASSDHEP-E912 *Presented at 4th Int. Conf. on Hadron Spectroscopy, Hadron '91, College Park, MD, Aug 12-16, 1991*

47. J. Dowd *et al.*, "Preliminary partial wave analysis of the $K^+K_s^0\pi^-$ system produced in 8-GeV/c K^-p interactions," Nucl. Phys. Proc. Suppl. **21**, 11 (1991).

48. H. T. Diehl *et al.*, "Measurement Of The Ω^- Magnetic Moment," Phys. Rev. Lett. **67**, 804 (1991).

49. J. Dory *et al.*, "Polarization of $\overline{Xi}^-$ hyperons produced by 800-GeV protons," Phys. Rev. Lett. **67**, 1193 (1991).

50. J. Dory *et al.*, "Polarization of Ξ^- hyperons produced by 800-GeV protons," FERMILAB-PUB-91-209

51. P. M. Ho *et al.*, "Measurement Of The Polarization And Magnetic Moment Of $\overline{\Xi^+}$ Anti-Hyperons Produced By 800-Gev/C Protons," Phys. Rev. D **44**, 3402 (1991).

52. P. M. Ho *et al.*, "Polarization and magnetic moments of $\Xi^-, \overline{\Xi}^+$ and Ω^- hyperons," *Prepared for Particles & Fields 91: Meeting of the Division of Particles & Fields of the APS, Vancouver, Canada, 18-22 Aug 1991*

53. B. Brabson *et al.*, "Proposal to use the NWA electron test beam at Fermilab for tests of a lead glass calorimeter prototype," FERMILAB-PROPOSAL-0818

54. J. Dory *et al.*, "A Preliminary measurement of the polarization of Ω^- and Ξ^- hyperons produced by 800-GeV protons,"

55. P. M. Ho *et al.*, "Production polarization and magnetic moment of $\overline{\Xi^+}$ anti-hyperons produced by 800-GeV/c protons," Phys. Rev. Lett. **65**, 1713 (1990).

56. J. Lui, F. Sannes, S. Schnetzer, R. Stone, S. Teige, G. B. Thomson and Y. Zou, "Warm Heavy Liquid Calorimetry: A Proposal To Measure Performance Of Candidate Materials," FERMILAB-PROPOSAL-0807

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58. S. K. Blessing *et al.*, "Partial wave analysis of the $K^+\overline{K_0}\pi^-$ system produced in the reaction $\pi^- p \to K^+\overline{K^0}\pi^- n$ a 8-GeV/c," BNL-43147 *Presented at the 3rd Conference on the Intersections Between Particle and Nuclear Physics, Rockport, ME, May 14, 1988*

59. S. K. Blessing *et al.*, "Mass dependent fits of the partial wave analysis of the $K^+\overline{K^0}\pi^-$ system," BNL-42143 *Presented at Workshop on Glueballs, Hybrids, and Exotic Hadrons, Upton, N.Y., Aug 29 - Sep 1, 1988*

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61. A. Birman *et al.*, "Light meson spectroscopy: The D(1285) ($f_1(1285)$) and $E/\iota(1420)(f_1(1420), \eta(1440))$," PRINT-88-0299 (FLORIDA-STATE) *Prepared for Workshop on Production and Decay of Light Mesons, Paris, France, 3-4 Mar 1988*

62. K. J. Heller *et al.*, "Polarization and spin transfer at 800-GeV," *Prepared for Symposium on Future Polarization Physics at Fermilab, Batavia, IL, 13-14 June 1988*

63. K. Johns *et al.*, "Preliminary results from E756 on the Ξ^- and Ω^- magnetic moments," C88-09-12 *Prepared for 8th International Symposium on High-energy Spin Physics, Minneapolis, MN, 12-17 Sep 1988*

64. M. J. Longo *et al.*, "Polarization and spin transfer of Ω^- and Ξ^- hyperons at 800-GeV," C88-09-12 *Prepared for 8th International Symposium on High-energy Spin Physics, Minneapolis, MN, 12-17 Sep 1988*

65. F. Sannes *et al.*, "Letter Of Intent: A Measurement Of The CP Violation Parameter η_{+-0}, The Son Of E621," FERMILAB-PROPOSAL-0796

66. S. Teige *et al.*, "A Preliminary measurement of the $\Xi^0 \to \Sigma^0\gamma$ branching ratio and asymmetry parameter," C88-09-12 *Prepared for 8th International Symposium on High-energy Spin Physics, Minneapolis, MN, 12-17 Sep 1988*

67. N. Grossman *et al.*, "Measurement of the lifetime of K_S^0 mesons in the momentum range 100-GeV/c to 350-GeV/c" Phys. Rev. Lett. **59**, 18 (1987).

68. S. D. Protopopescu *et al.*, "Partial wave analysis of $KK\pi$ system in D and E/ι region,"

69. D. F. Reeves *et al.*, "Spin parity analysis of $\overline{p}p \to E(1420)X$," Phys. Rev. D **34**, 1960 (1986).

70. Z. Bar-Yam *et al.*, "Partial Wave Analysis Of $K\overline{K}\pi$ System In The D And E/ι Region," BNL-36493 *Presented at 20th Rencontre de Moriond, Elementary Particle Physics Mtgs, QCD and Beyond, Les Arcs, France, Mar 10-17 1985*

71. S. U. Chung *et al.*, "Spin And Parity Analysis Of $K\overline{K}\pi$ System In The D And E /ι Regions," Phys. Rev. Lett. **55**, 779 (1985) [Erratum-ibid. **55**, 2093 (1985)].

72. S. U. Chung *et al.*, "Phase Shift Analysis Of $K\overline{K}\pi$ System In The D And E/ι Regions," BNL-37146 *Int. Europhysics Conf. on High Energy Physics, Bari, Italy, 18/24 July 1985*

73. S. W. Teige, "A Study Of The D And E Mesons In $\pi^- p \to K\overline{K}\pi$," UMI-85-16659

74. B. C. Brown *et al.*, "A Study Of Jet Like Structure In High Transverse Energy Events Produced In P P Collisions At 400-Gev/C," Phys. Rev. D **29**, 1895 (1984).

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76. B. Brown *et al.*, "Production Of High Transverse Energy Events In P P Collisions At 400-Gev/C," Phys. Rev. Lett. **49**, 711 (1982).

77. B. Brown *et al.*, "Properties Of High Transverse Energy Hadronic Events," FERMILAB-CONF-82-034-EXP *Presented at 17th Rencontre de Moriond on Elementary Particle Physics, Les Arcs, France, Mar 14-26, 1982*

78. H. Haggerty *et al.*, "A Study Of Hadronic Final States Produced In Association With High Pt Jets And High - Mass Demeans," FERMILAB-PROPOSAL-0672