

CURRICULUM VITAE OF IAN SHIPSEY (NSF & DoE SHORT FORMAT 2005)

Ian Shipsey (Principal Investigator)

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(i). Professional Preparation:

Undergraduate:	Queen Mary, University of London,	Physics	B.Sc.	1982
Graduate:	Edinburgh University [CERN (NA31)]	Particle Physics	Ph. D.	1986
Postdoctoral:	Syracuse University	Particle Physics		1986-88

(ii). Appointments:

Professor	Purdue University	1999-present
Associate Professor	Purdue University	1994-99
Assistant Professor	Purdue University	1990-94
Research Assistant Professor	Syracuse University	1989
Research Associate	Syracuse University	1986-88

(iii). Selected Honors & other Recognition

Fellow, American Physical Society (elected 2002).

Co-Spokesperson CLEO Collaboration elected to three consecutive terms (2001- 2004).

Chair, vice-Chair, Panofsky Prize Committee, Division of Particles & Fields, American Physical Society (2004-5).

Invited Lecturer XXX SLAC Summer Institute (2002) and Frontiers of Particle Physics, Beijing, China (2005).

Vaden W. Miles Memorial Lecturer, Wayne State University, (2004).

Level 4 manager (plaquette assembly) LHC US CMS Forward Pixel detector modules (2002-present).

Mechanical design, fabrication and assembly group leader: silicon detector for CLEO III (1994-1999).

National Young Investigator (NSF NYI) Award (1992-1998).

Texas National Research Laboratory Superconducting Super Collider National Fellow (1993).

Five Purdue teaching awards at departmental, college and university level culminating in induction into the "Book of Great Teachers". (Approximately 200 faculty in the 136 year history of the university have received this honor.)

(iv) Selected Recent Professional Activities

1. Over **fifty** talks at international conferences, seminars and colloquia since 2000, including a plenary review talk on charm physics at the International Conference on High Energy Physics in Beijing 2004.
2. Author of the review "Charm Mixing and Rare Decays: G. Burdman and I. Shipsey *Ann. Rev. Nucl. Part. Sci.* (2003) and book chapter "D Mixing and CP Violation" in CP Violation Editors C. Jarlskog and T. Nakada *World Scientific* (to appear in 2005).
3. Co-leader the CLEO-c Taskforce of the CLEO Collaboration 2000-2001.
4. Member or chair ten International Advisory Committees since 2000 including Particles and Nuclei International Conference, PANIC 05 Los Alamos (2005), Aging Phenomena in Gaseous Detectors, DESY, Germany (2001), and Beyond 10E34: Physics at a Second Generation B Factory (2001).
5. Member, DoE Review Panel for the program in particle and astroparticle physics at Lawrence Berkeley National Laboratory (2002 and 2003), and reviewer for DoE, NSF, IEEE, and Nucl. Inst. & Meth. A.
6. Co-convenor, E2 working group, "The Future of Particle Physics", Division of Particles and Fields of the American Physical Society, Snowmass 2001, Colorado 2001.

(v) **Research areas:** B physics (1986-present), charm physics (1991-present), silicon and gas detector development (1992-present), kaon physics (1982-1986)

(vi) Publications

(i). Flavor Physics (Selected recent papers as a principal author, 250 papers total):

1. "Absolute Branching Fraction Measurements of Exclusive Charged D Semileptonic Decays" submitted to *Phys. Rev. Lett.* (May, 2005)

2. "Absolute Branching Fraction Measurements of Exclusive Neutral D Semileptonic Decays" submitted to Phys. Rev. Lett. (May, 2005).
3. "Observation of Thirteen New Decay Modes of the $\psi(2S)$ ", submitted to Phys. Rev. Lett. (May, 2005).
4. "A Search for non $D\bar{D}$ decays of the $\psi(3770)$ ", to be submitted to Phys. Rev. Lett. (2005) (pending CLEO approval at the June meeting).
5. "Measurement of Absolute Hadronic Branching Ratios of D Mesons and the $e^+e^- \rightarrow DD$ Cross Sections at $E=3773$ MeV", G. He et al., (CLEO Collaboration) submitted to Phys. Rev. Lett. (April, 2005).
6. "Improved Measurement of the Form Factors in $\Lambda_c \rightarrow \Lambda e \nu$, J.W. Hinson et al., (CLEO Collaboration) Phys. Rev. Lett. 94 191801 (2005).
7. "A Review of Charm Physics", I. Shipsey to appear in the Proceedings of International Conference on High Energy Physics, Beijing 2004..
8. "An Experimenter's View of the Lattice" in Proceedings of the XXII International Symposium on Lattice Field Theory, Batavia, IL, USA 21-26 June 2004.
9. "Lattice Window on Strong Force" I. Shipsey, Nature Vol. 427 12 February 2004.
10. "Charm Mixing and Rare Decays: G. Burdman and I. Shipsey Ann. Rev. Nucl. Part. Sci. (2003).
11. "Observation of the Decay $\Omega_c \rightarrow \Omega e \nu$ ", R. Ammar et al. (CLEO Collaboration) Phys. Rev. Lett. **89**, 171803 (2002).
12. "Report of Snowmass 2001 Working Group E2: Electron-positron Colliders from the phi to the Z". Z. Zhao hep-ex/0201047. Proceedings of "The Future of Particle Physics" Snowmass (2002).
13. "CLEO-c & CESR-c: A New Frontier in Weak and Strong Interactions" CLEO-c/CESR-c Taskforces & CLEO-c Collaboration, Cornell LEPP preprint CLNS 01/1742 (2001).
14. "A Measurement of the Decay Asymmetry Parameters in $\Xi_c^0 \rightarrow \Xi^- \pi^+$ ", S. Chan et al., Physical Review D 63, 111102 (R) (2001).
15. "First Evidence for Direct CP Violation", H. Burkhardt et al., Physics Letters B 206, 169 (1988).

(ii). Instrumentation papers (Selected recent papers as principal author, 25 papers total):

1. "First Mass Production of a MICROME GAS", G. Bolla, J. Miyamoto and I. Shipsey submitted to Nucl. Inst & Meth. (2005).
2. "Electron Transparency, Ion Transparency and Ion Feedback of a 3M GEM" P.B. Barbeau, J. Collar, J. Miyamoto and I. Shipsey, Nucl. Inst. & Meth **A525** 33-37 (2004).
3. "A First Mass Production of Gas Electron Multipliers", P.B. Barbeau, J. Collar, J.D. Geissinger, J. Miyamoto, I. Shipsey and R. Yang Nucl. Inst. & Meth. **A515** 439-455 (2004).
4. "An Aging Study of a MICROME GAS + GEM" S Kane, J, May, J. Miyamoto and I. Shipsey Nucl. Inst. & Meth. **A515** 260-265 (2003).
5. "An Aging study of Triple GEMS in Ar-CO₂", L. Guirl, S. Kane, J. May, J. Miyamoto, and I. Shipsey Nuclear Inst. & Meth. **A478** 263 (2002).
6. "The Silicon Tracker for CLEO III", I. Shipsey et al., Nuclear Instruments and Methods A **386** 37 (1997).

(vii). Synergistic Activities:

1. The PI conducts extensive outreach to K-12 by giving particle physics and astronomy presentations in local area schools. The PI involves high school teachers in research through the Purdue NSF Quarknet center.
2. The PI's research features extensive involvement of undergraduate science and engineering students both from Purdue (20 undergraduates since 1993) and the Nation through the Purdue NSF REU program.

(viii) Undergraduate, Graduate and Postgraduate Scholars Sponsored:

Total Undergraduate students in research: 20 Total Graduate students advised: 9

Thesis Advisees first postdoctoral employment in parentheses: Ting Miao (Postdoc., Fermilab), Mary Bishai (Postdoc., Fermilab), Ekkehard Gerndt (DESY Fellow), Naresh Menon (Corning Optoelectronics), Shenjian Chen (Postdoc., University of Colorado) Victor Pavlunin (Postdoc., Purdue University)

Current students: Xin Bo, Batbold Sanghi, and Seunghee Son.

Total Postgraduate Scholars sponsored: 6

Dr. James Fast (Staff Member, Fermilab), Dr. Huang Guangshun (Purdue University),
 Dr. Jik Lee (Scientist, Seoul National University, Korea), Victor Pavlunin (Purdue University),
 Dr. Jun Miyamoto (Staff Scientist, Carleton University), Dr. Peining Wang (Industry).