

**Curriculum Vitae**  
**Todd K. Pedlar**

Department of Physics  
Luther College  
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**Education**

**Ph.D.** May, 1999, Northwestern University, Evanston, IL.  
*Concentration:* Elementary Particle Physics, *Advisor:* Prof. Kamal K. Seth  
*Dissertation title:* Study of Two Photon Decays of Charmonium Resonances Formed in Proton-Antiproton Annihilations.

**B.A.**, with Honors - *summa cum laude*, May 1991, Whitman College, Walla Walla, WA.  
*Major field:* Physics, *Minor field:* Mathematics, *Advisor:* Prof. James G. Pengra.

**Academic Appointments**

**9/03 - present:** *Visiting Assistant Professor of Physics*, Dept. of Physics, Luther College.  
**5/03 – 9/03** *Postdoctoral Associate*, Dept. of Physics, Cornell University.  
**5/99 – 4/03:** *Postdoctoral Research Associate*, Dept. of Physics, The Ohio State University.  
**6/93 – 4/99:** *Research Assistant*, Dept. of Physics, Northwestern University.  
**9/92 – 9/93:** *Teaching Assistant*, Dept. of Physics, Northwestern University.  
**9/91 – 9/92:** *University Fellow*, Dept. of Physics, Northwestern University.  
**8/89 – 5/91:** *Teaching Assistant*, Dept. of Physics, Whitman College.

**Academic Honors and Awards**

**1991-92:** University Fellowship, Northwestern University.  
**May 1991:** Honors in major field, *summa cum laude*, Whitman College.  
**Summer 1990:** Pew Foundation Fellowship, Stanford University.  
**April 1990:** Elected to F BK.  
**1987-1991:** National Merit Scholar, Whitman College.

**Professional Affiliations**

American Physical Society, 1991-2002  
American Association of Physics Teachers 1991-1996, and 2003-present

**Research Activities**

**Cornell University, Laboratory for Elementary Particle Physics: CLEO (1999-2003)**

Member of the CLEO Collaboration, whose aim is to study heavy quark states produced in electron-positron annihilation. Worked with the data acquisition group on both electronics hardware and software for the readout of the detector. Led or participated in several analyses. Served as CLEO Run Manager from 2000-01, overseeing experimental operations. Member of a task force that produced proposals for the Department of Energy and the National Science Foundation for a new project (CLEO-c) at Cornell.

**Fermi National Accelerator Laboratory: E835 (1993-1999)**

Involved in all facets of Fermilab experiment E835, including hardware design and construction, writing software for data acquisition, and data analysis. The experiment was devoted to the precision spectroscopy of charmonium states. Analysis focus was on electromagnetic decays of charmonium states.

**Brookhaven National Laboratory: E852 (1994-1995)**

Participated in setup and data taking for E852, which sought evidence for non-quark-antiquark mesons.

**Los Alamos Meson Physics Facility: E1274, E1198 and E1066U (1991-94)**

Participated with small Northwestern University group examining the properties of very heavy isotopes of He, Li and Be. Played a key role in these experiments, including detector assembly, beam tuning, data taking, and data analysis.

### Conference Talks

“Recent CLEO Results in B and D Decays”, and “CLEO-c and CESR-c: A New Frontier in Our Understanding of Weak and Strong Interactions”, *5th International Conference on Hyperons, Beauty and Charm Hadrons*, June 2002, Vancouver, Canada.

“Measurement of Color-Favored B Meson Decays and the Strong Phase  $\delta$ ”, *2002 Meeting of the Division of Particles and Fields of the American Physical Society*, May 2002, Williamsburg, Virginia.

“Recent CLEO Results in Hadron Spectroscopy”, *International Europhysics Conference on High Energy Physics*, July 2001, Budapest, Hungary.

“Radiative J/Ψ Decays with CLEO-C”, *Workshop on Prospects for CLEO/CESR with 3-5 GeV* May 2001, Cornell University.

“The CLEO III Detector”, and “Production of  $\eta_c$  in Two Photon Interactions at CLEO”, *2000 Meeting of the Division of Particles and Fields of the American Physical Society*, August 2000, Columbus, Ohio.

“Charmonium Spectroscopy from Fermilab E835”, *Workshop on Heavy Quarks at Fixed Target*, October 1998, Fermi National Accelerator Laboratory.

“Physics Results from Charmonium Production in FNAL E835”, *New Perspectives '98*, July 1998, Fermi National Accelerator Laboratory.

### Selected Seminars and Colloquia

“Quarkonia Made Simple”, CLEO Lunch Seminar, June 2003, Cornell University.

“The Future of Physics at CLEO”, Physics Department Seminar, April 2001, Geneva College.

“Investigation of Two photon decays of charmonium states formed in proton-antiproton annihilation”, High Energy Physics Seminar, February, 1999, The Ohio State University.

“Charmonium Spectroscopy: The State of the Art and the Future”, High Energy Physics Seminar, November, 1998, University of Notre Dame.

### Selected Publications

Included below are recent publications to which significant contributions in underlying analysis or writing, or both, were made. A full list of over 125 publications is available on request.

D. Cronin-Hennessy, et al., (CLEO Collaboration) “Observation of the Hadronic Transitions  $\chi_{b1,2}(2P) \rightarrow \omega Y(1S)$ ”, *hep-ex/0311043*, submitted to *Physical Review Letters*.

M. Ambrogiani et al., (E835 Collaboration), “Measurement of the Resonance Parameters of the Charmonium Ground State,  $\eta_c(1^1S_0)$ ”, *Physics Letters B566*, 45, 2003.

S. Ahmed et al., (CLEO Collaboration), “Measurement of  $B(B^0 \rightarrow D^0 \pi^+)$  and  $B(B^0 \rightarrow D^+ \pi^-)$  and Isospin Analysis of  $B^0 \rightarrow D \pi$  Decays,” *Physical Review D66*, 031101R, 2002

S. Chen et al., (CLEO Collaboration), “Study of  $\chi_{c1}$  and  $\chi_{c2}$  Production in B Meson Decays,” *Physical Review D63*, 031102R, 2001.

K. W. Edwards et al., (CLEO Collaboration), “Study of B Decays to Charmonium States  $B^0 \rightarrow \eta_c K$  and  $B^0 \rightarrow \chi_{c0} K$ ,” *Physical Review Letters* 86, 30, 2001.

B.I. Eisenstein et al., (CLEO Collaboration), “Experimental Investigation of the Two-Photon Widths of the  $\chi_{c0}$  and the  $\chi_{c2}$  Mesons,” *Physical Review Letters* 87, 061801, 2001.

M. Ambrogiani et al., (E835 Collaboration), “Study of the  $\gamma\gamma$  Decays of the  $\chi_{c0}$  and  $\chi_{c2}$  Charmonium Resonances”, *Physical Review D62*, 052002, 2000.