

# Yanwen LIU

## CURRICULUM VITAE

### 1 SOME PERSONAL DATA

**First Name :** Yanwen  
**Last Name :** Liu  
**Date of Birth :** March 27, 1980.  
**Place of Birth :** LinXiang, Yueyang  
Hunan Province, P. R. CHINA  
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### 2 EDUCATION

1999.11 – present : Graduate Student  
Department of Nuclear and Particle Physics  
University of Geneva  
Switzerland.  
expected to graduate in Oct. 2004 with the degree of Ph.D in High Energy Physics.

1995.9 – 1999.9 : Special Class for the Gifted Young(SCGY)  
University of Science and Technology of China  
Hefei AnHui, China.

### 3 TEACHING

2000 – 2004 Teaching Assistant in University of Geneva

- Taught experiments of different sorts : mechanics, nuclear and electronics(e.g, positron electron annihilation - positron source shooting at fixed target, some kinematic variables of the photon pairs at final state can reveal some properties of the material of which the target is made).

- In order to understand the resolution of the annihilation experiment, I wrote a simulation to describe the setup using GEANT 4.

## 4

## RESEARCH

- CDF SVT Associate Memory Sequencer boards tests and maintenances, some contributions to the SVT online code and board testing software.
- I wrote the validation module for CDF photon data quality monitoring, with the guidance from Raymond Culbertson, Steve Kuhlmann, and other photon fans.
- I spent significant amount of time studying the L2 photon triggers in the CDF plug calorimeter with Raymond Culbertson, Steve Kuhlmann and people from CDF trigger group. We finally understood the efficiency drop in the 4 rings of towers, and brought up a fix to the problem.
- I contributed primarily to the debugging of the central shower maximum detector (CES) reconstruction code, and the re-calibration of CES efficiencies using calibration samples ( $W$ ,  $Z$ ,  $\eta \rightarrow \gamma\gamma$  and min-bias events).
- I did the measurement of di-photon cross section measurement with Robert Blair, Raymond Culbertson, Joey Huston, Steve Kuhlmann and Xin Wu. The analysis is now being finalized for publishing.

## 5

## TALKS

- Sept.19, 2003 :      Talk about diphoton cross section measurement at CDF collaboration meeting  
 April 29, 2004 :     Talk about diphoton cross section measurement at CDF collaboration meeting  
 On various dates :   Talks at CDF QCD group and photon group meetings.

Generally available journal articles with primary authorship :

Internal CDF Notes:

1. Diphoton central-central cross-section measurement at CDF Run II

R.Blair, R. Culbertson, J.Huston, S.Kuhlmann, Y.Liu, X.Wu

CDF Note 6312

2. Study of L2 EM Trigger Inefficiency at high eta

R.Culbertson, S.Kuhlmann, Y.Liu

CDF Note 6106.

**The note is in need of an update – with more data we had later on, we cleared the doubts and communicated with CDF Trigger group for a fix to the problem.**

3. Run II Exotics Diphoton sample (100pb-1)

R. Culbertson, M.Kim, S.-W. Lee, Y.Liu A.Wyatt

CDF Note 6310.

Other publications and preprints :

4. Measurement of the Mass Difference  $m(D_{+s}) - m(D_+)$  at CDF II

D. Acosta et al., The CDF Collaboration, Phys. Rev. D68, 072004 (2003).

5. Measurement of Prompt Charm Meson Production Cross Sections in p anti-p Collisions at  $s^{*}(1/2) = 1.96$  TeV D. Acosta et al., The CDF Collaboration, Phys. Rev. Lett. 91, 241804 (2003).

6. Search for the Flavor-Changing Neutral Current Decay  $D_0 \rightarrow \mu^+ \mu^-$  in p anti-p Collisions at  $s^{*}(1/2) = 1.96$  TeV D. Acosta et al., The CDF Collaboration, Phys. Rev. D68, 091101 (2003).

7. Observation of the Narrow State  $X(3872) \rightarrow J/\psi \pi^+ \pi^-$  in p anti-p Collisions at  $s^{*}(1/2) = 1.96$  TeV D. Acosta et al., The CDF Collaboration, FERMILAB-PUB-03/393-E. Submitted to Phys. Rev. Lett. December 4, 2003.

8. Search for  $B_0(s) \rightarrow \mu^+ \mu^-$  and  $B_0(d) \rightarrow \mu^+ \mu^-$  Decays in p anti-p Collisions at  $s^{*}(1/2) = 1.96$  TeV D. Acosta et al., The CDF Collaboration, FERMILAB-PUB-04/036-E. Submitted to Phys. Rev. Lett., March 19, 2004.

Some NIM papers on SVT :

9. THE CDF ONLINE SILICON VERTEX TRACKER. By A. Bardi et al. FERMILAB-CONF-01-376-E, Dec 2001. 7pp. Prepared for 7th International Conference on Advanced Technology and Particle Physics, Villa Olmo, Como, Italy, 15-19 Oct 2001. Published in Nucl.Instrum.Meth.A485:178-182,2002

10. INITIAL EXPERIENCE WITH THE CDF SVT TRIGGER. By W. Ashmanskas et al, 2003. Prepared for 10th International Workshop on Vertex Detectors (Vertex 2001), Brunnen, Switzerland, 23-28 Sep 2001. Published in Nucl.Instrum.Meth.A501:201-206,2003

11. THE CDF SILICON VERTEX TRIGGER. By CDF-II Collaboration (Bill Ashmanskas et al.). FERMILAB-CONF-03-168-E, Jun 2003. 4pp. Presented at 9th Pisa Meeting on Advanced Detectors: Frontier Detectors for Frontier Physics, La Biodola, Isola d'Elba, Italy, 25-31 May 2003. Published in Nucl.Instrum.Meth.A518:532-536,2004 e-Print Archive: physics/0306169