THE HIGGS FACTORY STUDY:

PART II

REPORT FOR SNOWMASS

Neutrino Factory and Muon Collider Collaboration Meeting
May 2-3, 2001

Gail G. Hanson
Indiana University

- Workshop at UCLA February 28 – March 1
- Outline of Report

HIGGS FACTORY WORKSHOP
UCLA FACULTY CENTER

Feb. 28-March 1, 2001

Organizers:
David Cline, UCLA
Gail Hanson, I.U.

Indiana University

"FROM THE NEUTRINO FACTORY TO THE HIGGS FACTORY: MUONS ALL THE WAY"

TOPICS

1. Update of LEP2 Higgs Search Results
2. Theory and Higgs Physics
3. Neutrino Factory Studies I & II
4. Proton Driver for Higgs Factory Single Bunch Operation
5. Collection System and Pre Cooling
6. Final Cooling Schemes: Emittance Exchange
7. Use of Neutrino Factory Acceleration System for Higgs Factory
8. Higgs Factory Storage Ring
9. Parameters for Higgs Factory

! For information about local accommodation, contact Kevin Lee, klee@physics.ucla.edu; or Sylvia Vartan, sylvia@physics.ucla.edu.

Higgs Factory Study for Snowmass 2001

(http://www.physics.ucla.edu/snowmass
user id "higgs"
password "factory3")

Overview and Summary(D. Cline, G. Hanson)

Chapter 1. Higgs Physics (V. Barger, M. Berger, J. Gunion)

$\times$10 luminosity (D. Neuffer)

Chapter 2. Neutrino Factory Parameters from Feasibility Studies I and II (TBD – D. Cline, G. Hanson)

Chapter 3. Reconfiguration of Proton Driver and Target for Single Bunch Operation (W. Chou, T. Roser $\rightarrow$ S.Y. Zhang?, C. Ankenbrandt?)

Chapter 4. Targetry and Muon Collection (N. Mokhov, V. Balbekov, D. Neuffer)

Chapter 5. Precooling, Final Cooling/Emittance Exchange and Bunching (R. Fernow, D. Neuffer, V. Balbekov, Y. Fukui)

Chapter 6. Using the Neutrino Factory Acceleration System (D. Summers, S. Berg, JLab person?)

Chapter 7. Higgs Factory Storage Ring (A. Garren, C. Johnstone)

Chapter 8. Summary of Parameters (Y. Fukui -- D. Cline, G. Hanson)

Chapter 9. Cost Drivers for the Conversion of the Neutrino Factory to the Higgs Factory (M. Zisman)

Lots to do!