CDF-II Memorandum of Understanding among the Fermi National Accelerator Laboratory, the CDF-II Collaboration and The University of Padova and INFN Sezione di Padova-Trento

April 14th 2005

I. Personnel and Coordination of Responsabilities

A. The following members of the University of Padova and Istituto Nazionale di Fisica Nucleare, Sezione di Padova, are presently participants in the Collaboration. This level of commitment, intended for 2005, is expected to be stable until 2007.

Name	Title	Location	Fraction*	Other Commitments
D. Bisello	Physicist	Padova	50%	Teach, LHC
G. Busetto**	Physicist	Padova	50%	Teach, GLAST
I. Lazzizzera	Physicist	Trento	100%	Teach
M. Loreti	Physicist	Padova	50%	Teach, LHC
T. Dorigo	Post-doc	Padova	100%	
D. Lucchesi	Post-doc	Padova	100%	
A. Gresele	Post-doc	Trento	100%	
J. Donini	Post-doc	Padova	100%	
F. Delli Paoli	Tech. Fell.	Padova	100%	
G. Cortiana	Student	Padova	100%	
S. Da Ronco	Student	Padova	100%	
S. Amerio	Student	Trento	100%	
G. Compostella	Student	Trento	100%	

* the fraction listed is for research time.

** G. Busetto is the coordinator for Padova University and INFN, Padova-Trento for the year 2005, and the representative on the CDF II Executive Board.

The following list summarizes the temporary positions:

Name	Title	Expected end of present engagement
T. Dorigo	Post-doc	04.2007
D. Lucchesi	Post-doc	03.2005
A. Gresele	Post-doc	11.2006
J. Donini	Post-doc	10.2005
F. Delli Paoli	Tech. Fell.	09.2006
G. Cortiana	Student	12.2005
S. Da Ronco	Student	12.2005
S. Amerio	Student	12.2005
G. Compostella	Student	12.2007

II. Responsibilities of the University of Padova and INFN, Padova-Trento

A. Online Activities

1. Development and maintenance of L3 trigger tables for Z ---> bb (T. Dorigo)
2. Optimization and future maintenance of L3 trigger tables for top to multijet final state for high luminosity (A. Gresele)
3. Development and future maintenance of a L3 trigger tables for top to hadronic tau+jets final state for high luminosity (A. Gresele)

B. Offline and software activities

1. Contribution to the CDF-GRID project:

a) Contributions to the porting of the CAF code to match the European Grid requirements

b) Maintenance of the FNAL SAM station for the file storage from outside

c) Maintenance of the CNAF SAM station

d) Porting of the CAF code to run also on data files in the GRID

e) Development of a web based job monitoring system

f) Mangement and access to the GRID via SRM

Items 1.a) to 1.d) involve 1.5 fte under the responsibility of D. Lucchesi

Item 1.e) and 1.f) involve 1.5 fte under the responsibility of I. Lazzizzera

2. New developments and support to the simulation of the multijet final states of the Alpgen Montecarlo

Item 2. involve 0.5 fte, P. Azzi and F. Piccinini (INFN-PAVIA)

3. Data validation and selection for the Z-→bb analysis.

Item 3. involve 0.5 fte, T. Dorigo and J. Donini

4. Study of b-jet energy scale and development of Jet energy corrections. Convenership of the "jet energy correction" group.

Item 4. involve 0.5 fte, T. Dorigo

5. Skimming of the B-hadronic data set

Item 5. involve 0.5 fte, D. Lucchesi and S. Da Ronco

6. Studies of the SVT trigger biases on the lifetime distributions in the B decays with hadronic final states.

Item 6. involve 0.5 fte, D. Lucchesi and S. Da Ronco

C. Deliverables

1. Deliver the optimized L3 trigger tables for multijet top/higgs and Z→bb channels by summer 2005. (see Run 2 b PPTC)

2. Deliver and mantain a L3 trigger tables for top to hadronic tau+jets final state for high luminosity (see Run 2 b PPTC)

3. The contributions to the CDF-GRID project as listed in item C.1 will be mainly delivered by 2005. The activity related to item C.1.d will continue during 2006.
4. ……
5. ……

D. Operational Activities

Ph. D. students and post-docs will participate as Aces or SOS. Any effort is done for recruitment of new students and for funding their stay at Fermilab.

E. Supervision

Offline activities are coordinated by D.Lucchesi (GRID and B physics), T. Dorigo (Z-→bb and top to taus cross section). For Trento A. Gresele (for top multijet trigger) and I. Lazzizzera (top mass in tau+jets final state and contributions to GRID as spec. in C.1.e,f).

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Fermilab Directorate	date
_____	_____
CDF-II Detector Coordination Manager	date
_____	_____
CDF-II Detector Coordination Manager	date
_____	_____
CDF-II Spokesperson	date
_____	_____
CDF-II Spokesperson	date
_____	_____
Coordinator for the University of Padova	date
_____	_____
	date
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	date