# WG6:Interaction Region Summary

ISG4 meeting, July 19-22, 1999 at KEK T.Tauchi

# **Major Participants**

- T. Markiewicz, T.Maruyama(SLAC)
- T. Tauchi, A.Miyamoto, Y.Sugimoto, H.Yamaoka(KEK)

## **Activity of WG6 at ISG4**

#### 7/19

Plan of the ISG report and wrinting it.

Exchange of FLUKA simulation (Maruyama and Miyamoto)

#### 7/20

Writing the ISG report.

Joint session with WG1 (tail, length of collimation, SR profile etc.)

#### 7/21

Background issue and writing the ISG report.

- (1) A.Miyamoto, Status of FLUKA simulation
- (2) T.Maruyama, Progress in NLC Background calculations since Sitges
- (3) with WG1, discussion on high luminosity option
- (4) Y.Sugimoto, Update of pair background with realistic magnetic field
- (5) T.Tauchi, Comparison of ABEL, CAIN and Guinea-Pig focused on incoherent pair productions,

#### 7/22

#### Stability issue

- (1) H.Yamaoka, Analysis on support tube
- (2) T.Markiewicz, Other issues being investigated at SLAC

Then, preparing the summary.

### WG6:Interaction Region at ISG4

# Conclusion

- 1) Set the outline of the ISG report and start to write it.
- 2) Valuable exhange of informations on FLUKA simulation towards a common understanding of neutron background
- 3) Detailed investigations of e<sup>±</sup> pair simulations based on GEANT
- 4) Very good agreement between CAIN, Guinea-Pig and updated ABEL for e<sup>±</sup> pair s
- 5) Support tube(JLC) was comfirmed to be very stable against ground motion....
- 6) Engineering works on Q1 support, collimators, inertial sensor for Q1 vibration feedback have been begun. (SLAC)
- 7) With a new estimation of 0.1% tail, muon spoiler system was reconsidered. (SLAC)