

Microwave Detection of Air Showers Workshop

Chicago, October 4 – 8, 2010

Monday, October 4

Morning session: (Chair P. Privitera)

- 9:30- 9:45 Welcome and Workshop objectives (P. Privitera)
9:45-10:15 Review of Gorham et al paper (V. Verzi)
10:15-10:45 Simulation of Gorham et al beam measurement and extrapolation to EAS (F. Salamida)
10:45-11:15 Coffe Break
11:15-11:45 EAS simulation in MIDAS (Washington Carvalho)
11:45-12:00 EAS simulation in EASIER (A. Letessier-Selvon)
12:00-12:45 Discussion on simulation of microwave emission from EAS
- 13:00-14:30 Lunch, Quadrangle Club, Solarium

Afternoon session: (Chair J. de Mello Neto)

- Simulation of antenna response
- 14:30-15:00 MIDAS (L. Reyes)
15:00-15:30 MIDAS (E. Santos)
15:30-15:45 EASIER (A. Letessier-Selvon)
15:45-16:15 Coffe Break
16:15-16:45 CROME (F. Salamida)
16:45-17:15 FDWAVE: (C. Di Giulio)
17:15-17:30 Discussion on antenna simulation

Tuesday, October 5

Morning session:

9:30-12:45 Simulation of microwave flux from benchmark showers:
working groups activities

13:00-14:30 Lunch, Quadrangle Club, Solarium

Afternoon session: (Chair P. Facal)

14:30-15:00 Comparison of working groups results

Brief presentations on experimental efforts, focusing on expected sensitivity
(general scheme of the detector, system temperature, simulation, expected rates)

15:00-15:15 MIDAS (C. Williams)

15:15-15:30 AMBER (P. Allison)

15:30-15:45 CROME (R. Smida)

15:45-16:15 Coffe Break

16:15-16:45 EASIER (A. Letessier-Selvon)

16:45-17:15 FDWAVE: (V. Verzi)

17:15-17:30 Discussion on experiments sensitivity

Wednesday, October 6

Morning session: (Chair A. Letessier-Selvon)

Detailed presentation of experiments

- 9:30- 9:45 MIDAS: Hardware (P. Facal)
- 9:45-10:15 MIDAS Trigger implementation (M. Monasor)
- 10:15-10:35 MIDAS DAQ and Monitoring (P. Facal)
- 10:35-11:00 Coffe Break
- 11:00-11:25 MIDAS Absolute Calibration (M. Monasor)
- 11:25-11:45 MIDAS Relative Calibration (C. Williams-N. Hollon)
- 11:45-12:45 Visit to MIDAS antenna

- 13:00-14:30 Lunch, Quadrangle Club, Solarium

Afternoon session: (Chair M. Monasor)

Detailed presentation of experiments

- 14:30-15:15 AMBER (P. Allison)
- 15:15-16:00 CROME (R. Smida, F. Salamida)
- 16:00-16:30 Coffe Break
- 16:30-17:15 EASIER (A. Letessier-Selvon)
- 17:15-17:45 FDWAVE: (C. Di Giulio, V. Verzi)

Thursday, October 7

Morning session: (Chair A. Letessier-Selvon)

- 9:30- 11:00 Discussion on synergies between the different experiments:
sharing hardware, software tools, site activities
(background measurements, 15 min A. Letessier-Selvon)
- 11:00-11:30 Coffe Break
- 11:30-12:45 Beam Measurement Activities: AMY at BTF Frascati V. Verzi
- 13:00-14:30 Lunch, Quadrangle Club, Library

Afternoon session: (Chair V. Verzi)

- 14:30-14:50 Argonne Beam Facilities: (S. Chemerisov)
- 14:50-15:15 Argonne microwave measurements (P. Privitera)
- 15:15-15:45 Simulations: Beam Coherent Cherenkov (W. Carvalho)
- 15:45-16:15 Coffe Break
- 16:15-16:45 Simulations: Absorbers (C. Di Giulio)
- 16:45-17:30 Discussion on beam measurements:
Goals, hardware, organization, synergies

Friday, October 8

Morning session: (Chair P. Privitera)

9:30- 12:30 Plans and organization of measurements at the Pierre Auger Observatory

11:00-11:30 Coffe Break

12:30- 12:45 Workshop closing (P. Privitera)

13:00-14:30 Lunch, Quadrangle Club, Solarium