Minutes SBS Meeting February 10, 2012

Attendees: Kees de Jager, Bogdan Wojtsekhowski, Charles Perdrisat, Mahbub Khandaker, Mark Jones, John LeRose, Sergey Abrahamyan, Alexandre Camsonne, Lubomir Pentchev, Adam Sarty, Vina Punjabi, Nilanga Liyanage

1) Bogdan Wojtsekhowski says he received and e-mail from Dubna. They accept a concept of recent changes in the HCAL spec's
   a) 6 prototype modules arrived at JLAB from CMU last Friday
   b) Discusses design of modules
   c) Vahe Mamyan at CMU is analyzing GEM test run data from Mainz (10x10cm2 UVa chambers) and is getting good position resolution (65 μm).
2) Alexandre Camsonne gives a presentation on DAQ and Trigger Electronics for A1n
   a) See LINK for his slides
   b) Summary of slides:
      i) Bottlenecks:
         (1) Front end conversion (1.75-7.6 μs)
         (2) Fastbus: 10 Megawords/s = 40 Mbytes/s
         (3) CPU bus: 40 to 80 Mbytes/s
         (4) Network: Gigabit Ethernet 125 Mbytes/s (typical 80 Mb/s for each port, 2 ports used with new CPU so 160 Mb/s)
      ii) Conclusion:
         (1) Standard BigBite electron trigger
         (2) Gas Cerenkov readout using NINO chips
         (3) DAQ designed for 10 KHz using Fastbus
         (4) Seem reachable with module flipping, TDC suppression : to be tested
         (5) APV25
            (a) Readout with 3 samples takes 11 us, need to evaluate deadtime
   c) Worries expressed re APV25 deadtime
      i) Not a problem for GEP, coincidence experiment can use a level 2 trigger
      ii) But for A1n …
      iii) Will have a new module here soon and we can study this
3) Bogdan Wojtsekhowski introduces Sergey Abrahamyan
   a) Will be here for 6 months working on HRS support and also with Alex on electronics for the SBS program
   b) The test setup for ADC's.
      i) Developing the approach
4) Nilanga Liyanage gives a talk on GEM R&D at UVa
   a) See LINK for his slides
   b) Summary of slides:
      i) List of collaborators

ii) Clean room details
iii) Summary of GEM assembly effort
iv) Readout options
(1) Scalable Readout System (SRS) from CERN
(a) Runs with standalone DAQ
(b) Working on integrating into CODA
(2) Rome APV electronics system
(a) Hope to have ready for next beam tests
v) Materials on hand
vi) Plans

c) Still building but visitors are welcome
d) Mahbub Khandaker asks about gas mixture and how it relates to sparking. They use a 70/30 (Argon/CO2) mixture at 4000 V. It's much quieter than the standard 80/20.
e) Nilanga says he needs a VME controller with a USB interface. Trying to borrow one from JLAB.
f) He also needs a clean power supply. He can buy one but if someone has one he can borrow that would save some money.

5) Charles Perdrisat says he contacted an EMI representative re HV bases for SLAC's PMT's. That person said he would investigate.
6) Vina Punjabi has not heard from anyone re contributions to the newsletter.

-JJL