SANE Membership – 12/06

J. Jourdan, M. Kotulla
University of Basel, Basel, Switzerland

L. Pentchev
College of William and Mary, Williamsburg, VA

W. Boeglin, S. Dhamija, P. Markowitz, J. Reinhold
Florida International University, Miami, FL

I. Albayrak, E. Christy, C. Keppel, V. Tvaskis
Hampton University, Hampton, VA

A. Vasiliev
Institute for High Energy Physics, Protvino, Moscow Region, Russia

M. Khandaker, F. Wesselmann
Norfolk State University, Norfolk, VA

A. Ahmidouch, S. Danagoulian
North Carolina A&M State University, Greensboro, NC

V. Kubarovsky
Rensselaer Polytechnic Institute, Troy, NY

R. Gilman, X. Jiang
Rutgers University, New Brunswick, NJ

S. Choi, student
Seoul University, Seoul, Korea

Z.-E. Meziani
Temple University, Philadelphia, PA

P. Bosted, J.-P. Chen, V. Dharmawardarne, R. Ent, D. Gaskell, J. Gomez, D. Higinbotham, M. Jones, D. Mack, J. Roche, G. Smith, B. Wojtsekhowski, S. Wood
Thomas Jefferson National Accelerator Facility, Newport News, VA

M. Bychkov, D. Crabb, M. Commisso, D. Day, E. Frlez, K. Kovacs, N. Liyanage, J. Maxwell, D. Pocanic, O. Rondon (cospokesperson), K. Slifer, S. Tajima
University of Virginia, Charlottesville, VA

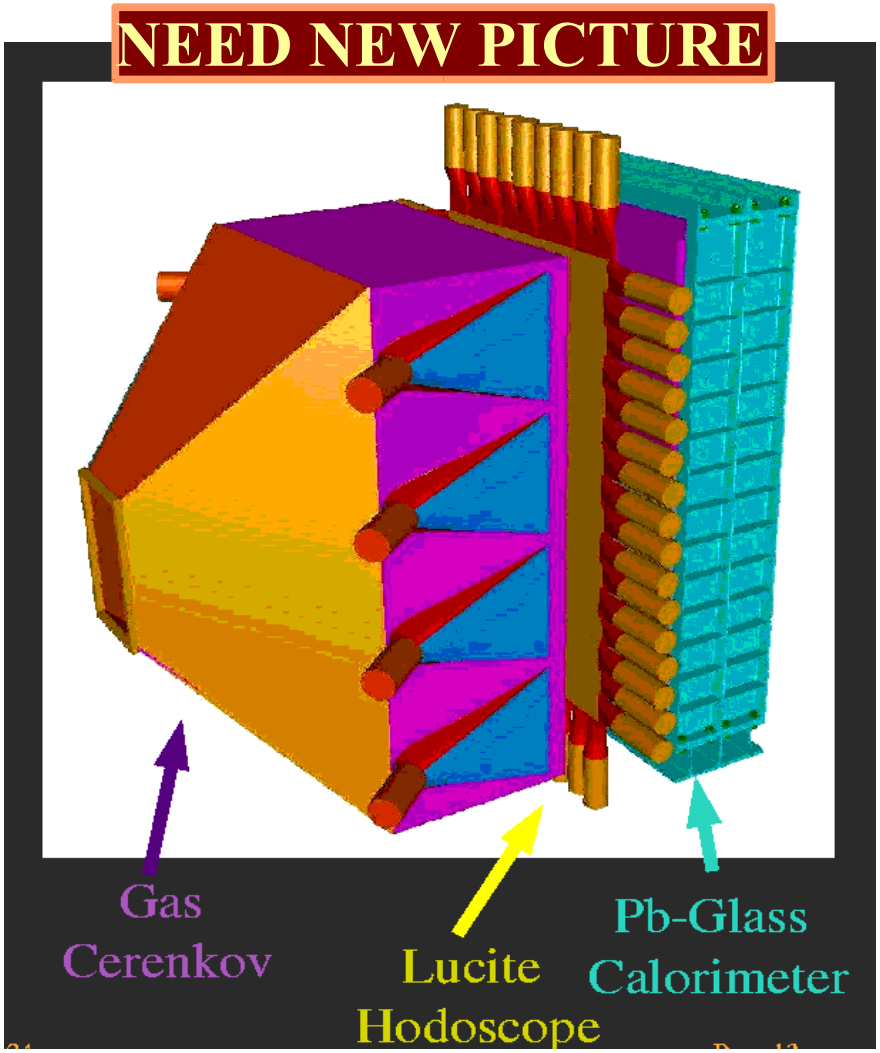
A. Asaturyan, A. Mkrtchyan, H. Mkrtchyan, V. Tadevosyan
Yerevan Physics Institute, Yerevan, Armenia

SANE Status - Open Issues 8/06

- Backgrounds and their reduction:
  - from beam line: detailed simulation and shielding design:
    - Pavel Degtiarenko provided us with latest version of .MCWORKS code
      - available for all at SANE's /group/c-e03109 disk space
      - Seoul U. working on this
- Update of SANE and BETA's GEANT
  - Glen Warren's code available on SANE's /group/c-e03109 disk
  - Mostly working, some PAW macros need additional work
- Target material: $^{14}NH_3$. UVA studying improvements to freezing methods,
  - Irradiation in 2007.
- Target platform design, integration with BETA stands in the works with Hall C engineering and design group, Temple, UVA and Hall C physics providing input

Big Electron Telescope Array – BETA

- BigCal lead glass calorimeter:
  main detector, being built for *GEp-III*.
- Gas Cherenkov: additional pion rejection
- Tracking Lucite hodoscope (Cherenkov)
- Target field sweeps low *E* background
- BETA's characteristics
  - Effective solid angle = 0.194 sr
  - Energy resolution 5%/$\sqrt{E}$(GeV)
  - angular resolution < 0.8°
  - 1000:1 pion rejection
- Added: front quartz hodoscope (geometry only)
  - vertex resolution ~ 5 mm
  - angular resolution ~ 1 mr



List of items (in no particular order)

- BigCal
  - Rutgers U. is joining SANE – will maintain trigger electronics
  - Lubomir Pentchev (W&M)
- Gain Monitor – UVA
- Calibrations - Regina - G. Huber
- HMS: need to remove FPP, replace aerogel. Yerevan
- Gas Cherenkov – Temple
- Front Hodoscope – NSU
- Lucite Hodoscope - NC A&T, KSU- St. Olaf (?)
- Target - UVa - Hall C
- Pair backgrounds - Hall C - Vipuli, P.B
- Beam backgrounds - Seoul - simulations: as indicated in PAC CA we plan to have preliminary results from simulation tools and background shielding design.
  - Seoul could also help with platforms, which will support shielding.
- UVA - J. Maxwell - maintained BETA's GEANT simulation which is being used to evaluate effects of changing kinematics, pion mass reconstruction, rates, etc.
- Beam request, chicane, target SEM
- Collaboration status: meetings, Web site, new collaborators