

Information and Resource Sharing in the Low Background Community

August 30, 2010

Abstract

It was noted at the Low Radiation Techniques (LRT) 2010 meeting at SNOlab that the low background counting community has matured into a rich sub-field of physics (and other scientific) research. It was therefore appropriate to have discussions about some unification of effort in the form of information and resource sharing. The initial form of this initiative was of course not fully decided but some interesting ideas were brought up. The following should serve as a sort of reminder (or minutes) of that discussion. Names are used where known. The notes were taken by Anthony Villano, a postdoc at the University of Minnesota under Prisca Cushman. Anthony can be most efficiently reached by email (villaa@physics.umn.edu) or phone at (612)625-5810. Anthony takes responsibility for any misinterpretations of what was said and who said those things.

1. **Points to start discussion (Richard Ford):**

- There are databases that exist (Reyco Henning, Pia Loaiza for Ilias)
- Figure 30% of a person dedicated to organization

2. **Comment (Prisca Cushman):**

AARM wiki exists and this vision was meant to be a broad collaboration of which the FAARM facility (DUSEL ISE) was just a single installation.

3. **Comment (Mark Chen):**

A possible model for this effort can be akin to the Particle Data Group. A formed body can have responsibility to collect and verify data.

4. **Comment (Nigel Smith):**

Resources for personnel come from leaders of the underground laboratories.

5. **Comment (unknown):**

PDG style spreads information but knowledge goes deeper than published numbers, i.e. know-how and intuition with a particular setup. Something like interactive forums could help this, but would require moderation.

6. **Comment (Vitaly Kudryavtsev):**

Ilias (<http://www-ilias cea.fr/>) had some sort of organizational structure similar.

Discussion (various):

- Single person *full time* for a period and then rotate
- Get a fund which is contributed to for an individual
- Gaining “critical mass” important becomes standard
- (Pia Loaiza) Ilias has a working group structure which assigns people for various issues (γ -assay, purification, etc.), suggest keep management not too “heavy”

7. **Comment (Vitaly Kudryavtsev) :**

Ilias structure (had,should have?) validation of MC codes

8. **Comment (Prisca Cushman):**

Suggest that a person be the channel for people to request a database and place it in a centralized location

9. **Comment (Richard Ford):**

How does a fund translate into 30% of a person and/or resources for putting together databases and websites

10. **Comment (Jacques Farine):**

Suggest students (summer, undergrad) can be paid part time to put together, with supervision

11. **Comment (general):**

Focus on getting web location and *rudimentary* structure started in the near term

12. **Comment (Jodi Cooley):**

Suggests a committee and web master combination for the organizational structure (LrDG, Low-rad Data Group, as name heard from audience)

13. **Comment (unknown):**

Suggest system where people have named accounts and some committee watches the system; students can do posts (i.e. sections of their theses) with references when information will be generally useful

14. **Comment (Nigel Smith):**
Notes that database is one thing but sharing of equip. (screeners), or Monte Carlo are other community issues.
15. **Comment (unknown):**
Monte Carlo's better to have general fixes not independent work-arounds this suggests some contact with Geant4 collaboration perhaps
16. **Comment (Prisca Cushman):**
For equipment one simple thing that can be done is to have a profile on web page/database of all equip and contact information so that sharing can be easily organized
17. **Comment (Nigel Smith):**
Suggestion on structure, similar to IUPAP (<http://www.iupap.org/>), it was commented this group more like a funding agency structure; Nigel suggest catalog of underground capabilities (I think, it was suggested by someone anyway)