We are not yet trying to answer questions about depth or particle correlations, but just laying the groundwork by sharing files and establishing common physics lists. Our agreed-upon plan has all of us learning how to read in other people's files and then producing a few standard plots that we can compare across installations to make sure we are on the same page and to establish uncertainties based on implementation or version. We should do that right away, because I am sure we will hit snags in the mechanics of doing or understanding methodology. For example, at the AARM meeting, we decided to anchor the livetime to the muon event rate at 4850. If one starts with files of particles entering the cavern, this means each event that produces particles is used to determine exposure. But for isotropic generation, one probably counts neutrons – and anchors it to the neutron rate in Mei&Hime. To make a good comparison, we need a set of output plots or numbers that we present, and I realize I was remiss not to make a common list for us to work toward.

Here is a first pass at that and PLEASE respond with comments and suggestions. We should get a simple set of maybe 6-10 plots that we all produce, and then post on the wiki.   I am putting too many plots down, but they are in rough priority order, so please address priority, if you make a suggestion. I fully expect that some are for much later in the game with the new files from Chao.

1. Muons per sec hitting the top of the water tank (downward)
2. Muons per sec per meter hitting all outer walls of the tank (from out to in)
3. Muon spectrum (KE) of those hitting the top of the water tank.
4. Neutrons (with KE > 100 KeV) per sec hitting the top of the water tank
        (downward)
5. Neutrons (with KE > 100 KeV) per sec per meter hitting all outer walls of the tank
        (from out to in)
6. Neutron spectrum (KE, all energies) of those hitting the top of the water tank.
7. Neutron spectrum (KE, all energies) of those hitting all walls other than top.
        Here it is important to make sure we only count inward-moving on the
        outside walls

Note that for the above fluxes, one number may be prescriptive (a number you chose from data to scale to) and the other will be deduced from the first. Obviously you do not have to fill in the muon spectrum if you start from neutrons, but it would be useful to deduce what muon flux your neutrons correspond to.

8. Neutrons (with KE > 100 KeV) per sec per meter entering detector volume.
9. Neutron spectrum of these.

Define:
NR=nuclear recoil as a neutron depositing more than 10 KeV in your target material.
Multiple NR = at least one NR plus any other localized energy deposition above 10
                        KeV in the target material.
Single NR = only one neutron deposits energy above 10 KeV.

Single WIMP candidate = any NR that passes for a single NR due to detector or readout constraints. Goes both ways
e.g.
Two NR's in same detector element is a multiple NR, but a Single WIMP candidate
EM fragment and NR in same element might be distinguished and removed.

10. Events per sec that have at least one NR
11. Rate of single NR (without including info from any possible veto)
12. Rate of Single WIMP candidates (ignore veto)

 Veto: apply your own best rules as to energy threshold of EM energy in LS or water, or hits due to muons, whatever is realistic – just give your rules on the wiki.

13. Veto ratio (vetoed : unvetoed) for single NR
14. Veto ratio for multiple NR.