



Milind Diwan &lt;milind.diwan@gmail.com&gt;

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**[Fwd: Re: Please check for accuracy]**

1 message

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**Milind Diwan <diwan@bnl.gov>**  
To: Milind Diwan <milind.diwan@gmail.com>**Mon, Feb 18, 2008 at 3:26 PM**

----- Original Message -----

Subject: Re: Please check for accuracy

Date: Mon, 18 Feb 2008 12:48:48 -0600

From: Mark Dierckxsens <[mdier@hep.uchicago.edu](mailto:mdier@hep.uchicago.edu)>To: [diwan@bnl.gov](mailto:diwan@bnl.gov)References: <[4075cf110802180928j44c61de3wcf4e486793e95b3b@mail.gmail.com](mailto:4075cf110802180928j44c61de3wcf4e486793e95b3b@mail.gmail.com)>

Hi Milind,

The strategy of first showing the full program and then the 1st phase comes out pretty well. I have a few comments on some numbers in your talk.

On the first page, where does 100000 events/year come from? If I look at the oscillated disappearance plot, I would get something more like 25000/yr (1MW, 300kt,  $2 \times 10^7$ sec).

On page 10, I would say the 50% coverage for the limit on  $s_{2213}$  is closer to 0.008 than 0.007 (It's much clearer from the plot on page 11) .

page 11: I've put 1.2MW on the nova style plots, whereas you use 1MW everywhere. The difference between the two is just the assumptions on how long a year is. Maybe you should mention this is the same exposure as shown throughout your talk, but this is only  $1.7 \times 10^7$  sec/year. This is the assumption that nova makes when they show there limits, so I would like to keep that in the plot.

A potential question you might get is how the time line, total cost and funding profile compares between a staged and all-at-once approach.

Let's hope P5 gets excited about this!

Mark

Milind Diwan wrote:

&gt; Friends:

&gt;

&gt; Please check my talk for accuracy. This one is important.

&gt;

&gt; I have included Mark's new plots for mass hierarchy

&gt; done in the same style as our NOvA colleagues.

- >
- > I have not had enough time to work with Butehorn on the costs and
- > schedule. I took Laurenti's
- > 1 module schedule and modified the cost and schedule for the PMTs and
- > the rest.
- > The numbers are still reasonable even with substantial contingencies: \$139M.
- >
- > The one time cost, however is high: \$27M. I included some PMT R&D and
- > water R&D in this.
- >
- > The PMT R&D is a good number: 1 electronics engineer (like Rick) +
- > project engineer +
- > designers + postdocs, etc. I know this well.
- >
- > The water R&D is a high number (a guess) because I thought we should
- > include advanced R&D for
- > the Gadolinium work. Probably just a subcontract to 3M or something.
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Regards  
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