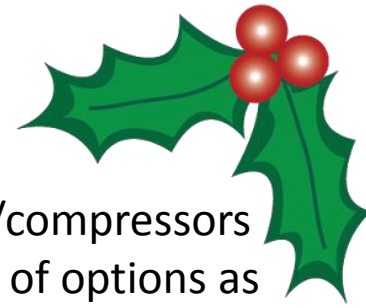




Modelling Update – 12/12/12

Model Update



Much of this week has been spent on improving the model of the racks/compressors and the area around the solenoids. We now have an ever expanding set of options as to how we model the racks and compressors for comparison purposes.

Compressors & Racks. We now can reliably get a 2mm thick skin (single element) to mesh with no issues. I have also been able to introduce an air gap between the outer skin and the reduced volume. We are also running models with the remnant rack mass as a solid block at the compressor/rack centre with and without Holger's shield.

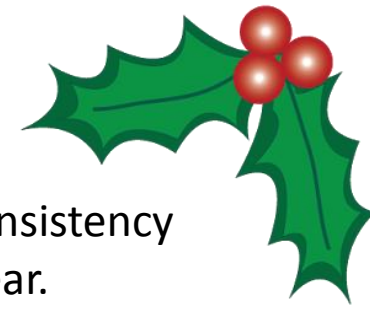
A lot of the details of the models that have been run /(are running) can be found at

http://www.hep.shef.ac.uk/research/mice/opera_models/test_models.html

Models 34 – 38 Starting to improve documentation on individual models.

We are getting a lot of interesting results - Craig has produced many preliminary slides - however we have decided not to show these yet as we are iterating on improving the model and ensuring our Step IV shield is consistent with Holger's model.

Model Update



This process of iterating through the compressor models and getting consistency between Holger's and our model will probably take me until the new year.

Unfortunately this means that I don't think I'm going to be able to start the second rack room model (and all the other ancillary buildings) until then.

I'm trying to improve the code's flexibility so that we can batch run some comparison jobs over Christmas without me having to do any additional coding...

We think that this round of simulations could give us a lot of insight into how much it matters wrt the details of what is inside those racks. (Although there are some assumptions with respect to the continuity of the outer skin of the rack that also needs testing.)