

Simulation of the EAR2 with mcnpX

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GEOMETRY DESCRIPTION

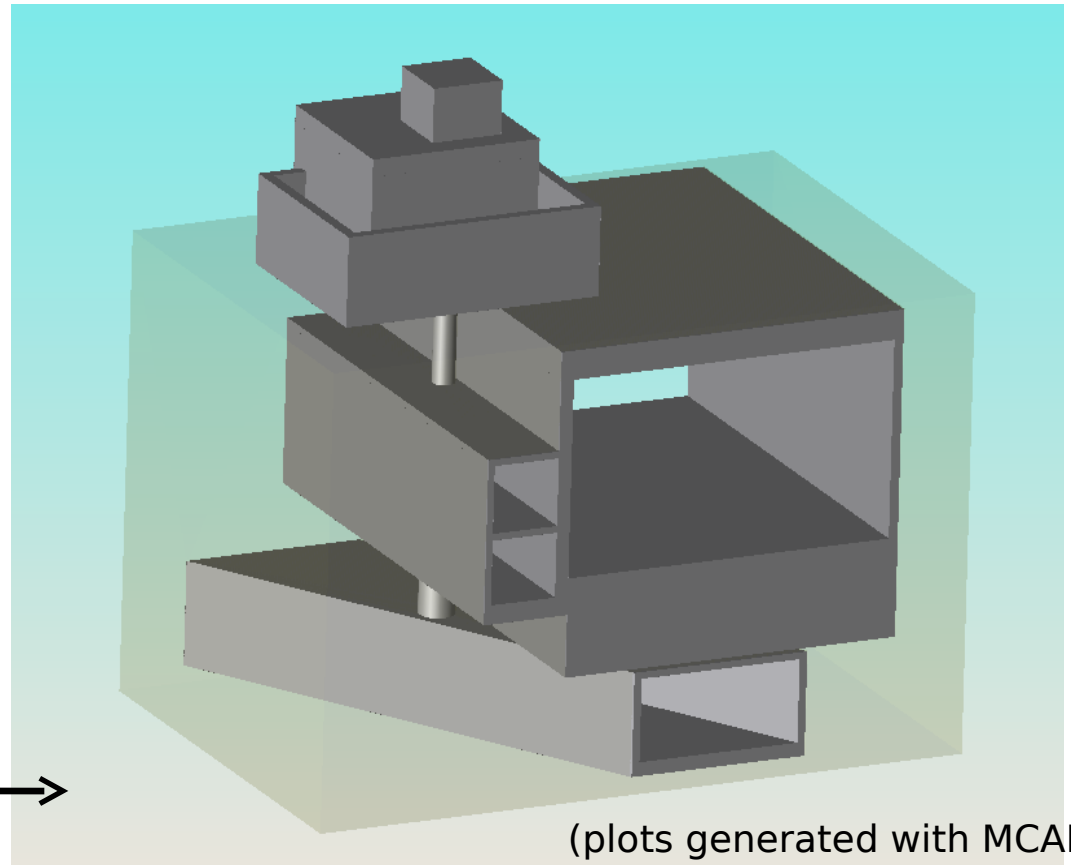
Geometry ready to perform simulations using **MCNPX**

Reference model: CAD model uploaded to EDMS-CERN by n_TOF Team (Sept. 2013)

Includes all **main components** and **details** of the facility:

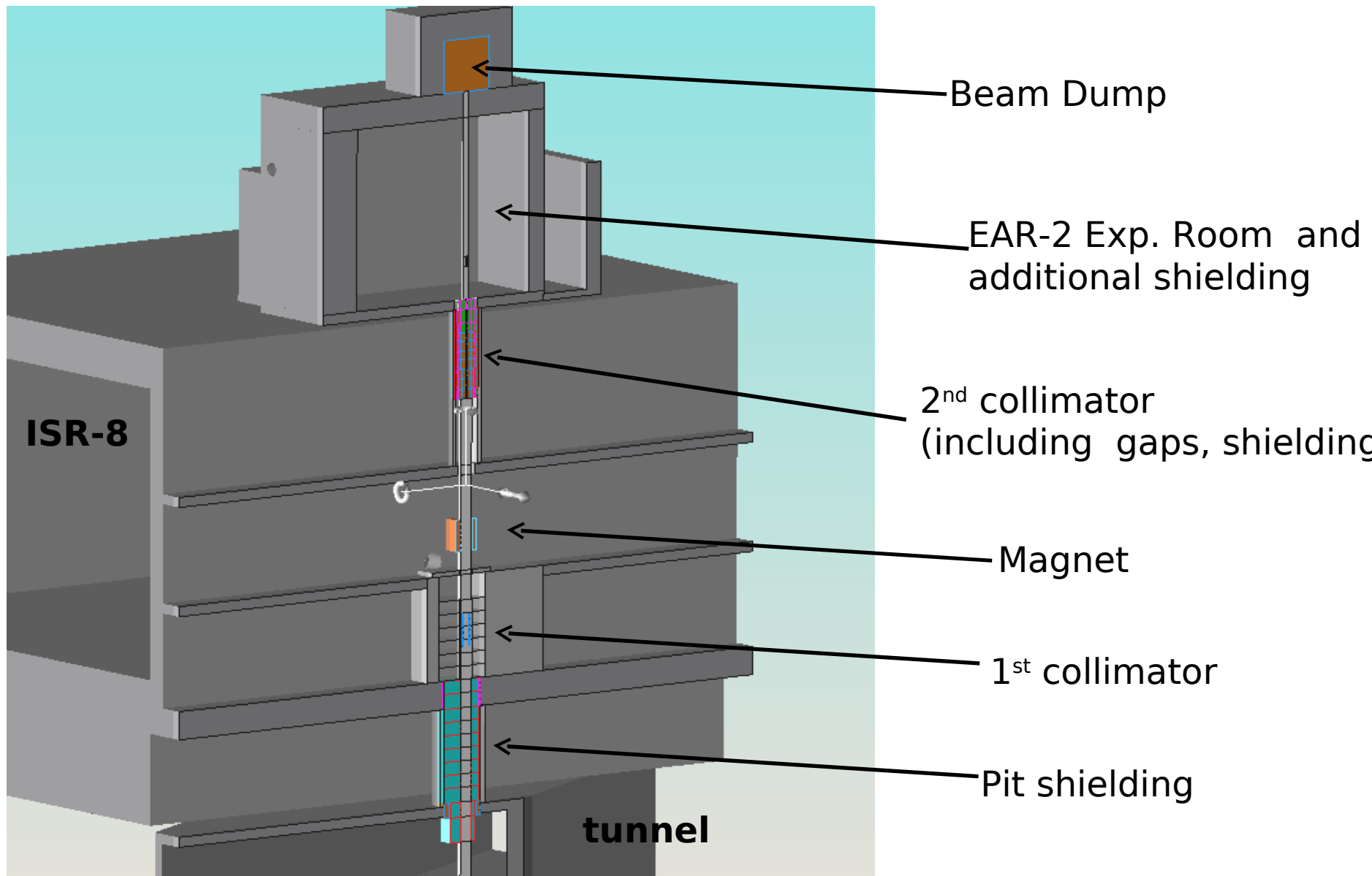
- Collimators
- Beam Dump
- Magnet
- Access galleries
- Experimental areas
- Pits
- Gaps of components
- Shielding

General **view** of the model →

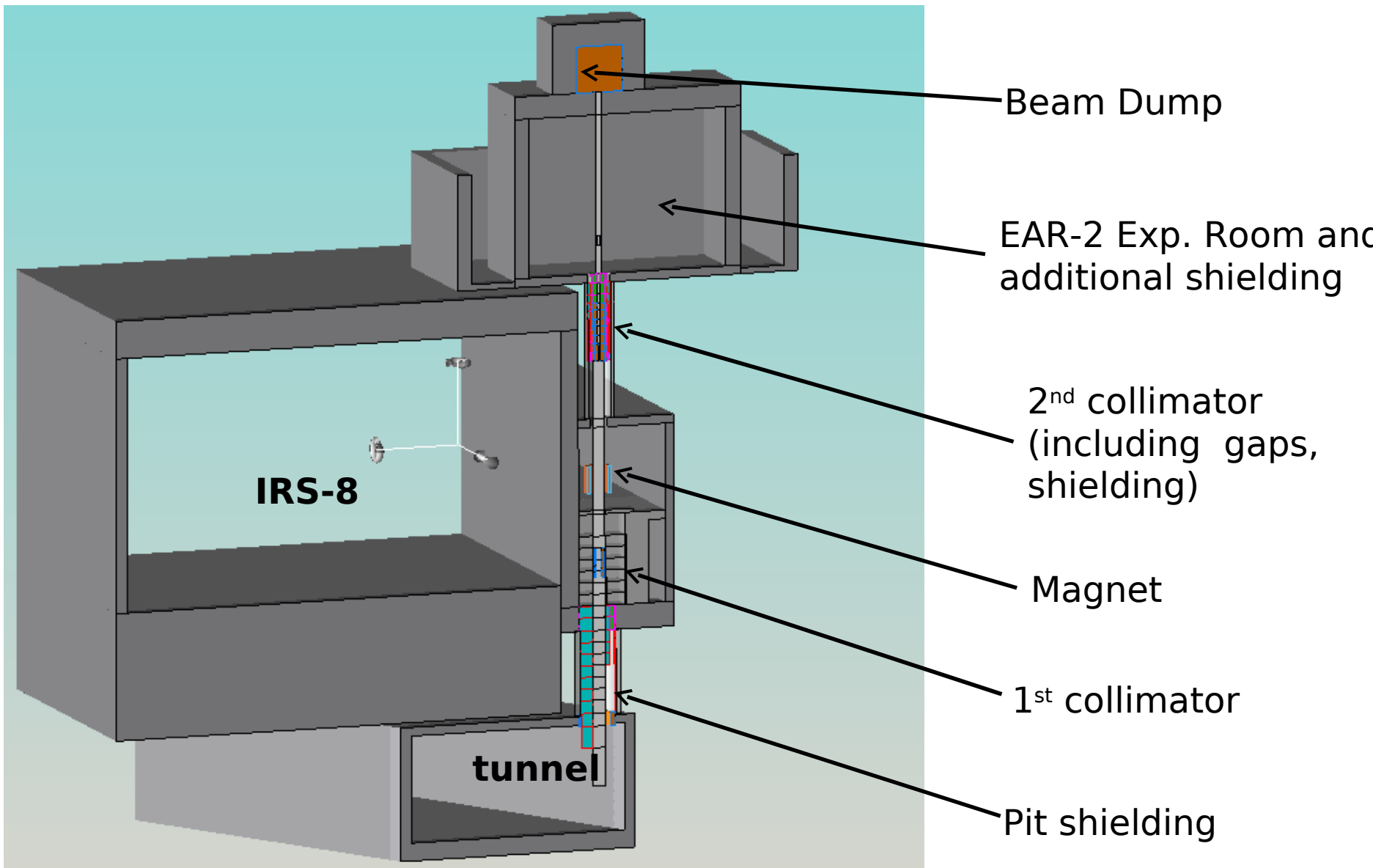


(plots generated with MCAM)

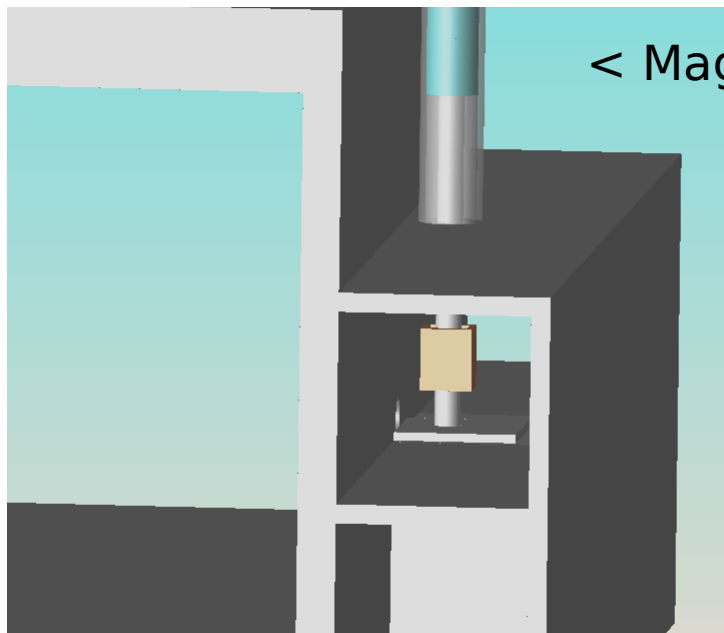
CROSS SECTION OF THE MODEL (I)



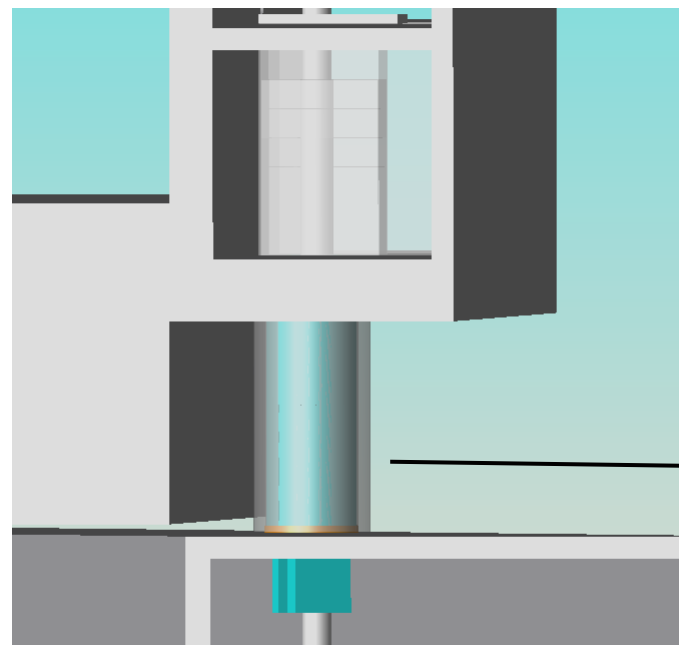
CROSS SECTION OF THE MODEL (II)



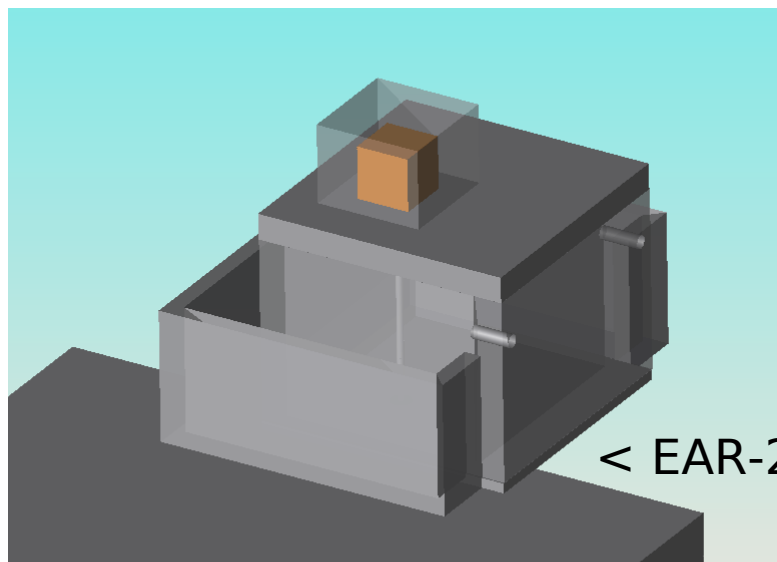
ADDITIONAL DETAILS OF THE MODEL



< Magnet, access gallery and upper pit shielding

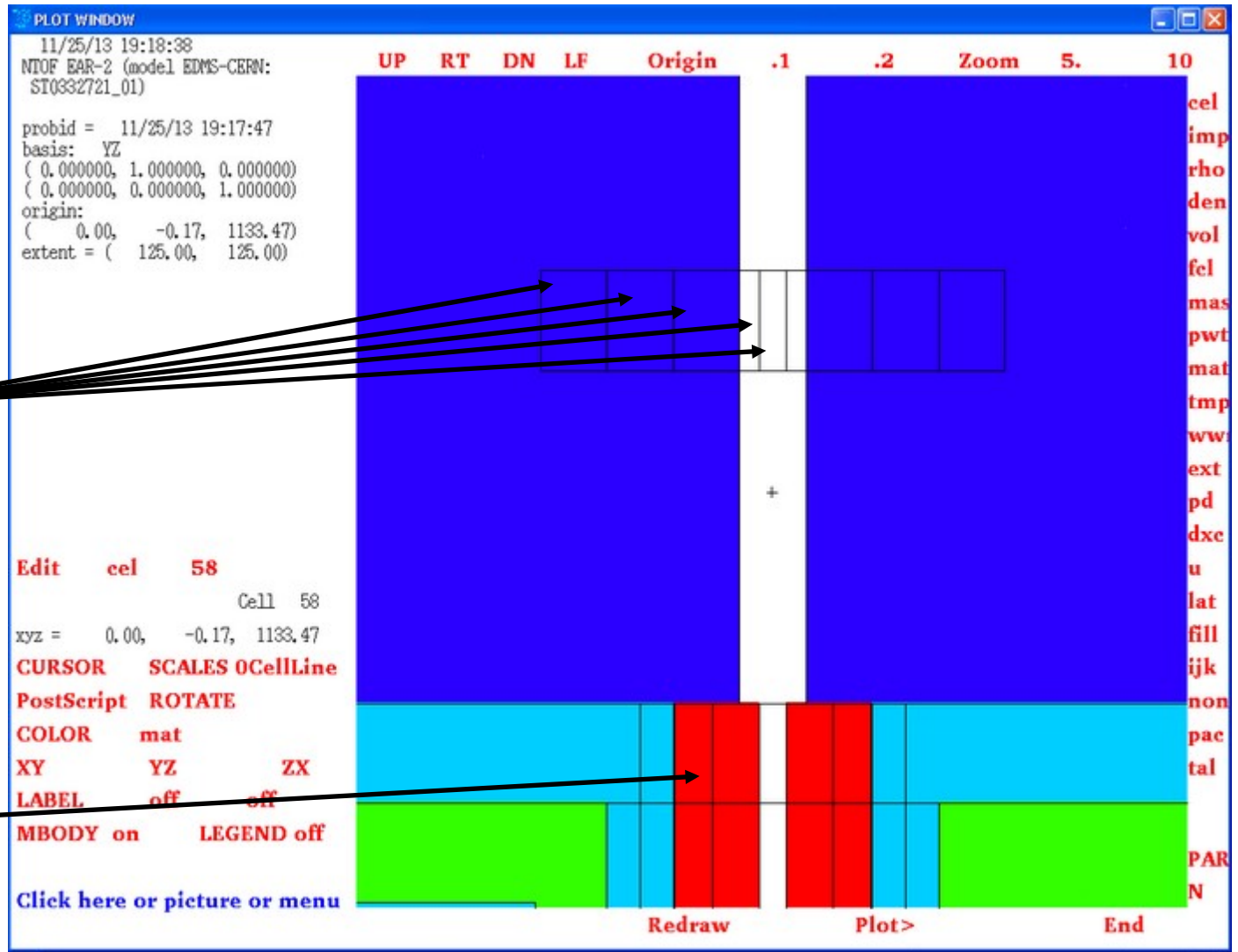


^ lower pit and 1st collimator shielding



< EAR-2 Room, additional shielding, HVAC apertures

First calculations

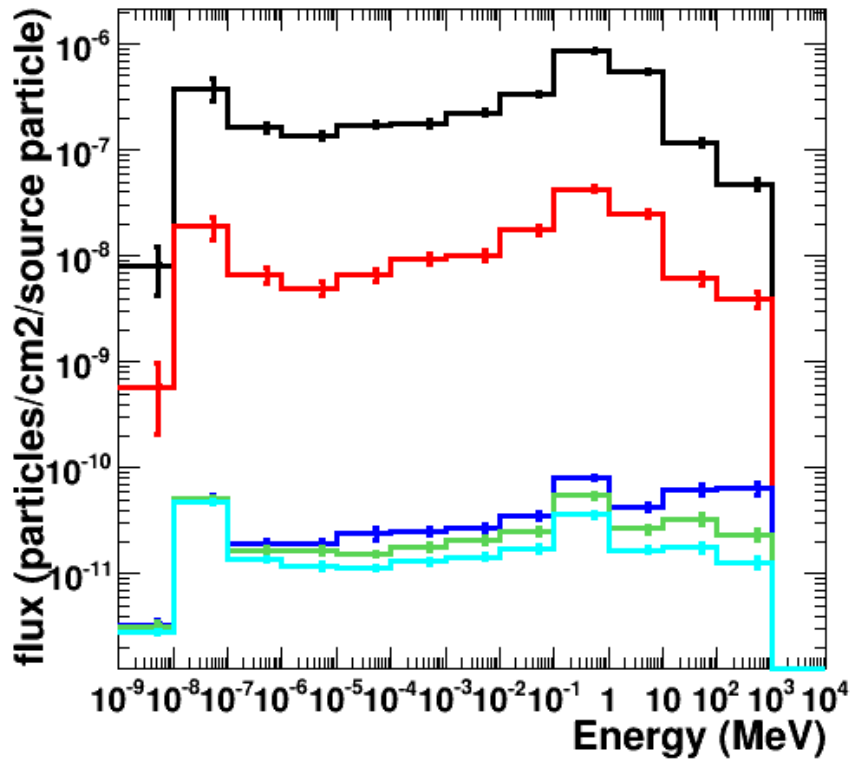


Tallies (n and p flux)

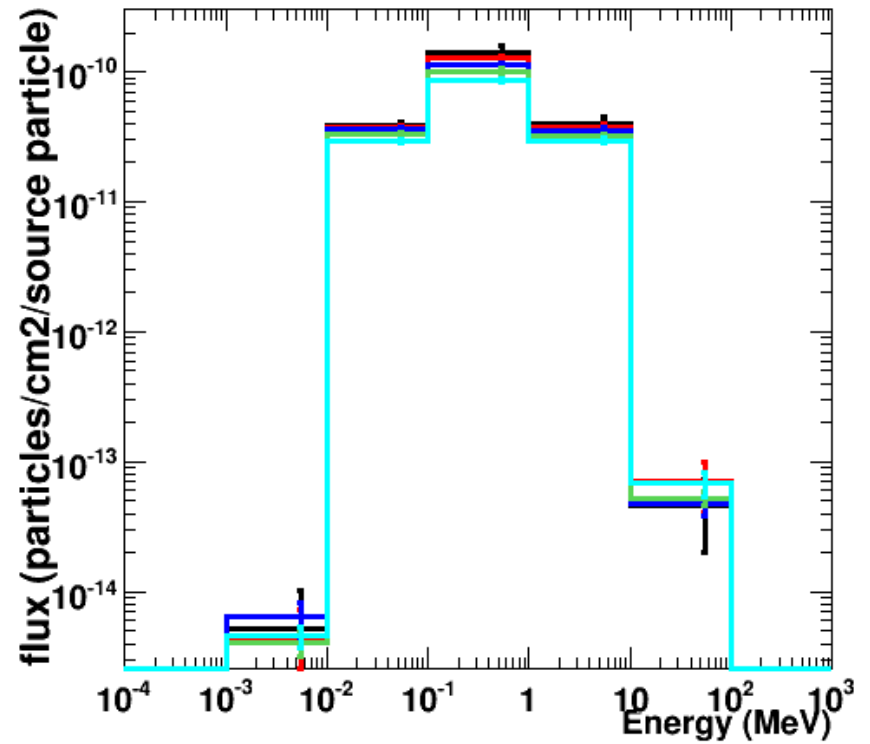
2nd Collimator

Tally results

128 processors – 25 min.



neutron flux



gamma flux