Brain-storming on open problems

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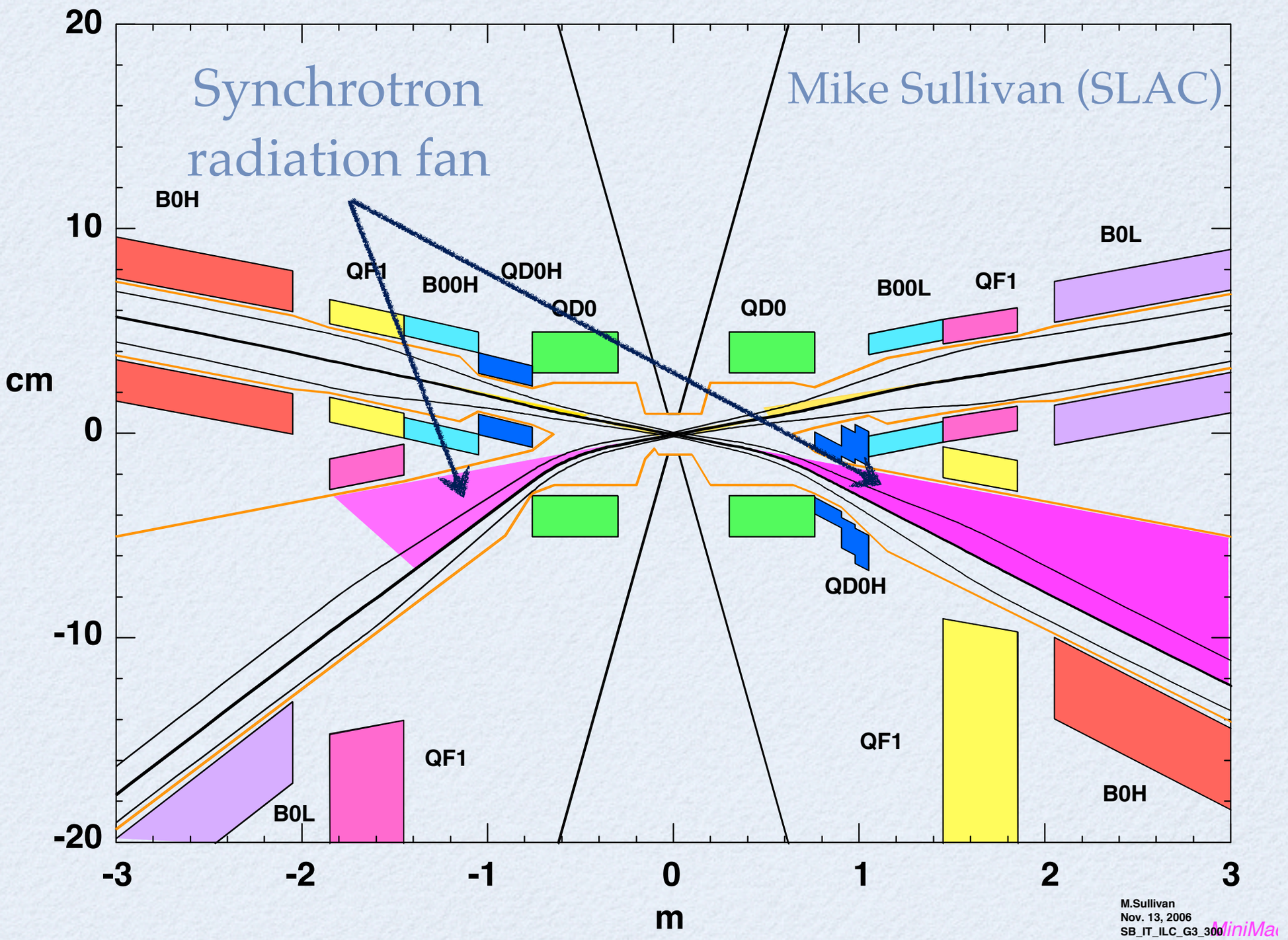
Neutron simulation

- We would like to study the neutron cloud behaviour in different configuration of the detector hall neutron shield
- Time expensive simulation of the neutron simulation (beam transport along the beam line)
- Time expensive (?) simulation of the fast neutron thermalization
- How to solve that?

Simple minded factorization

- Neutron generation at the final focus are snap-shotted at the final focus boundary first exit during full simulation
- Subsequent simulations of the neutron thermalization with different geometries
- How not to double count neutron energy releases? tag? kill?
- Reflective boundary condition

Interaction region: Nov. 2006

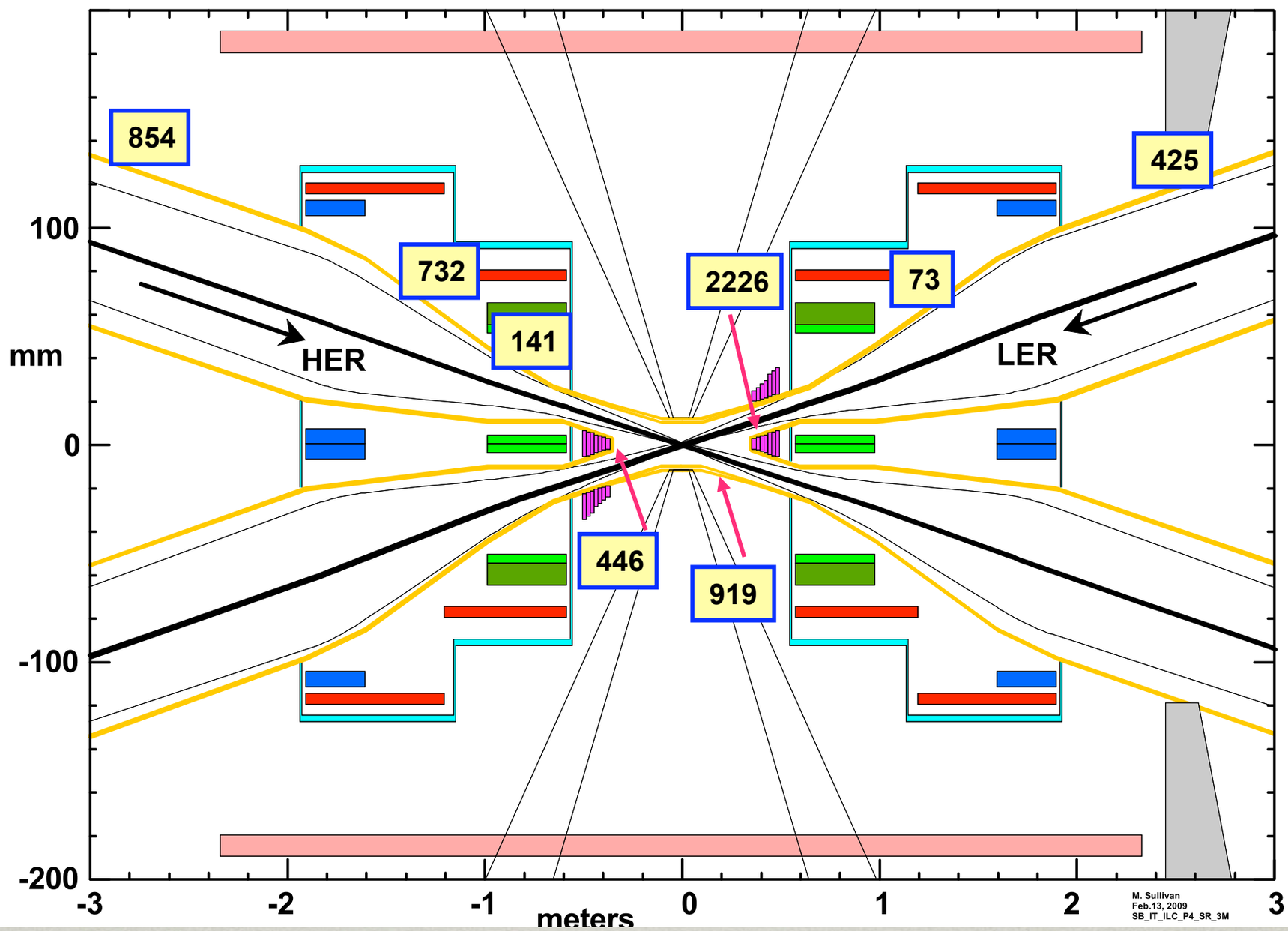


Synchrotron radiation

- Simple recipe
  - Generate particles at the IP according to the machine optic
    - back propagate the particles till the beginning of the beam line is found
    - generate a bunch in that position taking with non gaussian tails
    - propagate it forward with the synchrotron radiation turned on
- Biasing?

Mike Sullivan (SLAC)

SR power (Watts)



Who is going to do what?

- Back propagation ……
- Generation @ -15 m upstream the IP……..
- Biasing (generation, reflection, absorption)