NANDBEAM 2002

26th Advanced ICFA Beam Dynamics Workshop on Nanometre Size Colliding Beams

Report on Cryogenic Vibration Discussion

September 2-6, 2002, Lausanne, Switzerland

Who:

(A. Jain, B. Parker) / BNL, (N. Walker, + *Others*) / DESY (V. Shiltsev, *T. Sen*) / FNAL, (*Involved People*) / LHC +...

Available Magnets:

LHC Dipole (BNL Magcool)
HERA Upgrade Quads
and/or TTF Cryo Module
FNAL TEV Dipole (stand?)

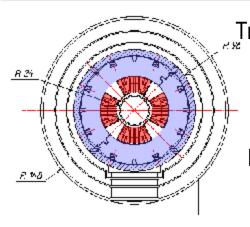
Objectives:

- a) Develop Measurement Coil Techniques.
 - inside aperture (tough)
 - outside cryostat (easy)
- b) Try interferometry on cold mass.

Engineering analysis is needed hand-in-hand with measurements (Do we understand?). Make small steps now and form lab contact points. Develop areas of common interest.

Final Goal:

Prototype LC FF Quadrupole (verification).



Traditional

Massive Coil/Yoke

Support Via Posts

BEPC-II (HERA Upgrade)

Light Weight

X/Y Constrained

Different resonance structure/modes?

Different driving terms (cooling & leads)?

Is anything common with PM quad solution?

