December 2012 CesrTA machine studies

1. IBS (What Mike said and all with electrons and positrons)
2. Search for source of vertical excitation that excites betatron oscillations and dilutes vertical emittance (Ask Jim S. about this)
3. Investigation of spectral response of xbsm coded aperture optics at 2.3 and 1.8 as well as 2.085 GeV using filters and taking advantage of all vacuum beam lines (Dan P.)
4. Measurement of dependence of projected horizontal beam size on RF voltage, and other optical parameters (betatron phase advance to vBSM source point)
5. Beam dynamics (check with Mike B.)
   1. Investigate precursor phenomena with electrons as well as positrons and effect on beam size blowup and head tail instability
   2. Look for head tail signature in xBSM bunch shape turn by turn spectrum (or maybe this has already been done?)
6. SPU studies in Helmholtz field (Jac, Jps)
7. TR studies in chicane dipole (Jps, Jac)
8. TE wave study in chicane chambers (Jps, Ks)
9. xBSM – characterization of fast diode response for bunch slice measurement (Nate)
10. Development of vBSM turn by turn capability and vBSM vertical beam size measurement. (Suntao, Robert H.)
11. SEY [walter]
12. RFA ? (Walter,Joe)
13. Tune shift data ? (Kreinick) (We might already have enough of this kind of data)