

Modeling of DDS3 ASSET '98 Results: Wakefields and Structure Alignment

R.M. Jones

R. M. Jones, ISG, 1-25-99

Conclusions

- ▶ **DDS3 as designed will damp the wake field such that a Gaussian fall-off in its amplitude occurs. Present structure has fabrication errors that flatten the initial wake so that fall-off is not seen until later (approx 25 m).**
- ▶ **The wake eventually is damped, due not to the detuning, but to the manifold damping**

- Structure shows **marked asymmetry in X and Y wake** (X wake data being significantly smaller than Y wake data). This implies the irises are not circular but elliptical.
- Beam based structure alignment data may also be affected by the errors in fabrication
- **Much better QC will be required for further structures in order to damp the wake.**