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

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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.

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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.

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