Early Results on a Search for Cyclotron Resonances in E CLOUD

-- Collaboration with Eric Wilkinson --

These slides includes corrections arising from the discussion during the presentation.

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Electron Cloud Simulations Meeting
Wilson Lab
17 June 2009
Inspired by June 2009 Measurements

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These resonances were not easy to find!

Resonant enhancement much smaller than the factor 2-3 calculated by POSINST for the PEP-II case.

NB: The v.c. is actually round (3.5 inch ID) and $\delta_{\text{max}} = 1.4$ is unrealistically small for Al.
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Resonance remains for lower SEY. 
Reminder: POSINST modelling for PEP-II found narrow minima rather than maxima at n=1,3. 
The cloud may not be reaching saturation for 4 ns spacing.

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Reducing the bunch charge may provide saturation at 4 ns spacing. Resonant enhancement appears to remain.