Early Results on a Search for Cyclotron Resonances in E CLOUD

-- Collaboration with Eric Wilkinson --

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Inspired by June 2009 Measurements

$0.025 \text{ p.e./e}^+ \quad 100\% \text{ reflectivity} \quad \delta_{\text{max}} = 1.4 \quad E_{\text{peak}} = 195 \text{ eV} \quad I_b = 2 \times 10^9 \text{ e}^+/\text{bunch} (1.25 \text{ mA})$

These resonances were not easy to find!

NB: The bunch spacing is only about ten times the bunch length, so $n=10$ does not show a resonance.
$E_{\text{peak}} = 195\ eV \rightarrow 310\ eV$

$\delta_{\text{max}} = 1.4\ E_{\text{peak}} = 310\ eV\ I_b = 2E10\ e^+/\text{bunch} (1.25\ mA)$

0.025 p.e./e+ 100% reflectivity

Resonance remains for lower SEY.

Reminder: POSINST modelling for PEP-II found minima rather than maxima at n=1,3.
The cloud may not be reaching saturation for 4 ns spacing.
Reducing the bunch charge may provide saturation at 4 ns spacing.