

<p>Wakefield Beam intensity 0.1 to 1 x 10<sup>10</sup></p>	<p>Small emittance at DR ~4pm Emittance growth at EXT</p>	<p>Small beam size <math>\sigma_y^* &lt; 70\text{nm}</math> (design 37nm) wrt ILC chromaticity correction</p>
<p>Wakefield free steering</p> <ul style="list-style-type: none"> <li>- algorithm for ATF2 beam line</li> <li>- beam study</li> </ul> <p>Alignment of CBPMs at large beta function regions &lt;100um</p> <p>CBPMs to stripline BPMs at large beta function regions</p> <p>Reduction of steps in the beampipes</p> <p>Exchange of SD4FF due to short circuit in one of 6 coils (done)</p> <ul style="list-style-type: none"> <li>- large skew sextupoles</li> <li>- large intensity dependence</li> <li>- measurement of beam size of &lt; 70nm</li> <li>- new sextupole magnets</li> </ul>	<p>Vacuum pressure &lt;10<sup>-7</sup> Pa</p> <ul style="list-style-type: none"> <li>- scrubbing with 50 to 100mA</li> </ul> <p>3D emittance measurements by new DR-LW</p> <ul style="list-style-type: none"> <li>- the cavity (done)</li> <li>- laser system (this weekend)</li> <li>- commissioning</li> </ul> <p>Beam position at MB2X (MB1X)</p> <ul style="list-style-type: none"> <li>- calibration (done w/ Yves's reconstructed orbits)</li> </ul> <p>Alignment of KEX1, BH3X</p> <ul style="list-style-type: none"> <li>- estimation by simulation with V offset, tilt (2 weeks)</li> <li>- re-alignment of them</li> </ul>	<p>If there is no wakefield issue at the low intensity :</p> <p>(1) <math>\beta_y^* = 0.1\text{mm}</math>, <math>1 \times 10^9/\text{bunch}</math> and <math>\delta = 0.05\%</math> : <math>\xi_y^* \delta = 1/2</math> of ILC  <math>\sigma_y^* = 45\text{nm}</math> @ <math>\epsilon_y = 20\text{pm}</math>  <math>\sigma_y^* = 55\text{nm}</math> @ <math>\epsilon_y = 30\text{pm}</math></p> <p>(2) <math>\beta_y^* = 0.05\text{mm}</math>, <math>1 \times 10^9/\text{bunch}</math> and <math>\delta = 0.05\%</math> : <math>\xi_y^* \delta = 1</math> of ILC  <math>\sigma_y^* = 32\text{nm}</math> @ <math>\epsilon_y = 20\text{pm}</math>  <math>\sigma_y^* = 39\text{nm}</math> @ <math>\epsilon_y = 30\text{pm}</math></p>
<p>larger effect to the beam size ?</p>	<p>Is the growth <math>\propto \epsilon_y</math> ?</p>	<p>No problem at low intensity?</p>