

**Vertical Beam Size, Non-Closure and LEP Performance,** B. GODDARD, W. HERR and M. LAMONT, CERN - The luminosity in LEP is critically dependent on the vertical beam size and thus on the effective control of contributing factors. Electrostatic separation bumps are used in LEP to avoid parasitic beam encounters and to allow the possibility of running with bunch trains. These vertical bumps are not closed at highest energies. The non-closure leads to different orbits for electrons and positrons and prevents effective minimisation of the residual vertical dispersion for both beams simultaneously. The various sources of the non-closure and a correction scheme which globally minimises the effects of this non-closure using only a few degrees of freedom are presented. The contributions to the vertical beam size from dispersion, coupling, beam-beam and other effects are quantified and the means used to control them are discussed.