

Status of the SLC Linac, R. ASSMANN, F.-J. DECKER, M.G. MINTY, Y. NOSOCHKOV, P. RAIMONDI, SLAC* - An important contribution to the increased luminosity of the SLAC Linear Collider (SLC) in 1997 is due to improved performance of the linac. New tuning and stabilization strategies have reduced the emittance growth to nearly negligible values (<10% in x and <30% in y). A stronger lattice has less sensitivity to wakefields. A new orbit correction scheme and a different emittance tuning procedure reduce the emittance growth further. The stability is improved by counteracting diurnal changes and additionally checking klystron phases. The jitter of the beam is monitored by analyzing the FFT spectrum for sources and keeping it under control. Careful attention is paid to the longitudinal setup from the rings to provide an optimal bunch length at the interaction point for maximum disruption enhancement.

* Work supported by the Department of Energy, contract DE-AC03-76SF00515.