

Comparison of the Short-Range Wakefields of the NLC Linac as Obtained by Different Numerical Methods, K.L.F. BANE, SLAC; A. MOSNIER, A. NOVOKHATSKI, SACLAY; K. YOKOYA, KEK - In the linac of the Next Linear Collider (NLC) trains of short, intense bunches are accelerated on their way to the collision point. The long-range wakefields will be damped and detuned sufficiently so that the dominant current-dependent effects remaining will be due to the short-range wakefields. Accurately obtaining the short-range wakefields for bunches as short as those in the NLC linac is not easy. We compare results obtained using two different frequency and one time domain method. In addition, using the time domain method, we explore the effects of the breaks in the periodicity of the accelerating structures, such as the slight variations in iris radii and the breaks at the ends of the structures, that are found in the NLC.