Dynamic Aperture Improvement of PEP-II Lattices using Resonance Basis Lie Generators*, Y.T. YAN, J. IRWIN, Y. CAI, M.H.R. DONALD, Y. NOSOCHKOV, SLAC - During PEP-II lattice development, modifications of a lattice would often result in a significant reduction in the dynamic aperture. At such times we relied on a nonlinear analysis using the one-turn resonance basis Lie generator to identify what have caused the reduction. In all cases, we would restore and possibly improve the original performance. Several specific cases are presented.

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