

**Betatron Phase Measurements in CESR, D. SAGAN,  
D. RUBIN, and S. GREENWALD** - The betatron phase  
has been measured at the Cornell Electron/positron  
Storage Ring CESR by shaking the beam and  
observing the phase of oscillation at various detectors.  
From the phase measurements the betatron Twiss  
parameters can be calculated and this allows beta errors  
to be corrected. This technique has the advantage over  
the 'traditional' method of varying quad strengths in  
that there is no magnet hysteresis to limit the accuracy  
and reproducibility. Additionally, the phase method  
can be used even when there are significant orbit  
displacements.