

**Set Up for Beam Energy Measurements at BESSY II, P. KUSKE, TH. MAYER, BESSY** - The energy of the electrons is one of the key parameters for the accurate description of the spectral distribution of synchrotron radiation. The energy can be determined with unsurpassed precision by the resonant spin depolarization technique. The set up for the BESSY II storage ring is presented. It is based on our experience with the improved system in operation at BESSY I. The spin dependence of the cross section for Touschek scattering will be used for the observation of the resonant depolarization of the electron spins. For this purpose  $\gamma$ -detectors are located outside but close to the vacuum chamber where scattered electrons are lost. The spin polarization will be destroyed by a radial time varying magnetic field. The forced vertical betatron oscillation couples spin and orbit dynamics. This has a strong impact on the efficiency of the depolarizer and its location.