

**First Observation of Quasiperiodic Undulator Radiation,** Masayuki Kawai et al., Physical Application & Technology Res. Dept., Kanto Technical Institute, Kawasaki Heavy Industries Ltd., Chiba - A test quasi-periodic undulator (QPU) 1.2 m long was constructed and installed in a compact storage ring NIJI-IV to confirm the validity of the prediction of a new concept of quasi-periodic undulator. We have observed, for the first time, the radiation spectrum composed of harmonics with irrational ratio, which is quite different from the harmonic spectrum with rational ratio common in conventional undulators. The spectrum agrees with the theoretical prediction. The storage ring was operated at about 200 MeV to provide the spectrum in the region of near infrared to ultraviolet wavelength, and the spectrum was observed with a grating monochrometer.