

Abstract Submitted
for the HAW05 Meeting of
The American Physical Society

Lifetime measurement of $^{12}\text{Be}(2_1^+)$ NOBUAKI IMAI, Institute of Particle and Nuclear Study, KEK, R324N COLLABORATION — We have measured the lifetime of the first 2^+ state of ^{12}Be in flight via the Doppler-shift attenuation method (DSAM). This is the first application of DSAM to the intermediate-energy unstable nucleus beam. The lifetime is inversely proportional to the $B(E2)$ value, which relates to the quadrupole deformation of charge distribution. It was suggested that the magic number of $N=8$ disappeared in ^{12}Be . Besides, the large matter deformation was inferred from the proton inelastic scattering. The measurement of $B(E2)$ value would provide further understanding of the exotic structure. The detail of the experimental method and the result will be presented.

Nobuaki Imai
Institute of Particle and Nuclear Study, KEK

Date submitted: 25 May 2005

Electronic form version 1.4