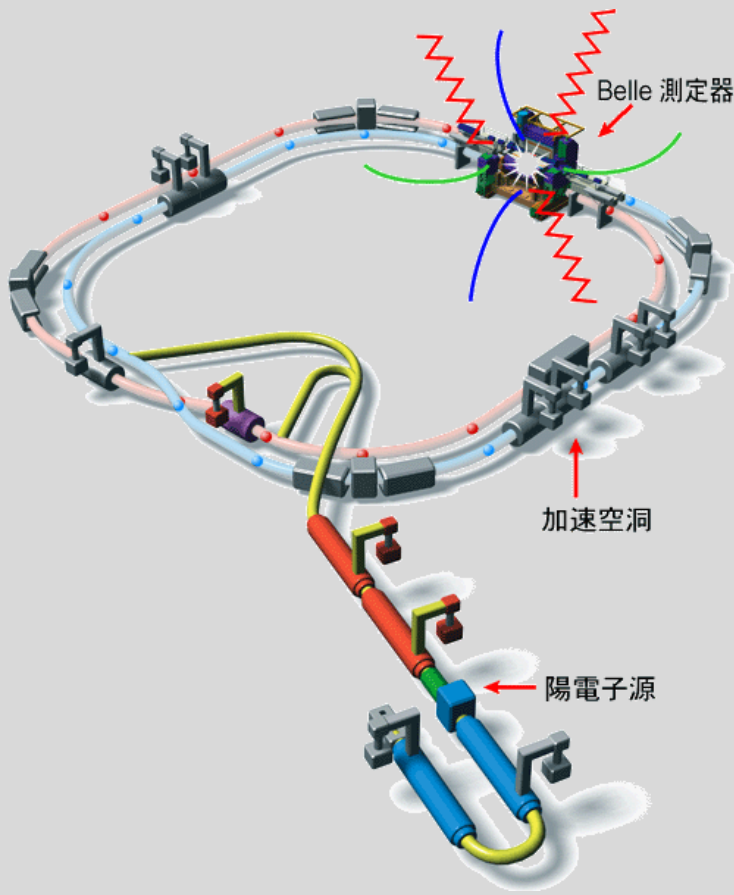


# PUBLIC LECTURE



## Particle-Antiparticle Symmetry: CP Violation and B-factory Experiments

by Prof M. Kobayashi, NL

Thursday, 19<sup>th</sup> August 2010  
2.30 p.m.

V.G. Kulkarni Auditorium  
Homi Bhabha Centre for Science Education, V.N. Purav Marg  
Mankhurd, Mumbai 400088

CP violation implies that physics laws are essentially different between particles and antiparticles. CP violation was found in the decay of the neutral K-meson in 1964. The six-quark model was proposed to explain CP violation within the framework of the gauge theory. Results from the B-factory experiments at SLAC and KEK have shown that dominant source of CP violation observed in the laboratory experiments is flavor mixing in the six-quark model.



Prof. Makoto Kobayashi is Professor Emeritus at KEK (Inter-University Research Institute Corporation), Japan. He has received many awards for his contributions to physics including the Nobel prize in 2008, which he shared with Toshihide Maskawa “for the discovery of the origin of the broken symmetry which predicts the existence of at least three families of quarks in nature”, the pioneering work known as the Kobayashi-Maskawa theory.

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