

# DESY Seminar

Tuesday, 11.12.2007, 17h

**Seminar Room 4 (!)**

## KEKB upgrade and its physics program

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KEKB is an asymmetric energy B factory with the highest luminosity in the world. The Belle group at KEKB has played an important role in establishing the Standard Model by precise test of Kobayashi-Maskawa model of quark mixing and CP violation in the various aspects. If new physics exists at the TeV energy scale, it is quite conceivable that deviations from the predictions of the Standard Model will be observed in the decays of heavy flavors such as B, D and tau. By increasing the luminosity of KEKB by a factor of  $\sim 50$ , the flavor physics will enter a new era of precision measurements in which the possibility of detecting new physics effects will be greatly improved. Therefore, detailed measurements at the upgraded KEKB facility can provide an excellent opportunity to examine the fundamental properties of CP violation and flavor mixing in new physics. In this talk, physics program and design of the machine and the detector will be reviewed. Especially, our strategy to reach the luminosity close to  $10^{36}$  will be presented in detail.

- **Tea and cookies will be served at 16.45h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**