



T.C.  
İSTANBUL TEKNİK ÜNİVERSİTESİ  
FEN EDEBİYAT FAKÜLTESİ  
FİZİK MÜHENDİSLİĞİ BÖLÜMÜ  
MASLAK 34469 İSTANBUL

## İTÜ Fizik Mühendisliği Bölümü Bölüm Seminerleri

**Konuşmacı** : Prof. Dr. Kai-Feng Chen (National Taiwan University)  
**Konuşma Başlığı** : Measurement of  $B_{s,d}$  to  $\mu^+\mu^-$  decays at CMS

### Konuşma Özeti

The measurement of the  $B_s$  to  $\mu^+\mu^-$  branching fraction and effective lifetime, and a search for the decay  $B_0$  to  $\mu^+\mu^-$  will be presented. The analysis uses a data sample of  $pp$  collisions accumulated by the CMS experiment during LHC Run-1 and 2016. The branching fractions are determined by measuring the event yields relative to  $B^+$  to  $J/\psi K^+$  decays with a reduction of the systematic uncertainties. The decay  $B_s$  to  $\mu^+\mu^-$  has reached 5 sigma discovery significance, and the associated effective lifetime has been measured for the first time at CMS.

**Referanslar:** <https://www.nature.com/nature/journal/v522/n7554/full/nature14474.html>

### Kısa özgeçmiş

Physics Society of ROC Ph.D. thesis prize (2005), IUPAP Young Scientist Prize (2008), Foundation for the Advancement of Outstanding Scholarship Award (2010), Ta-You Wu Memorial Award (2012), GoldenJade Young Scientist Prize (2014)

Experimental High Energy Physics CMS Experiment at CERN, Geneva, Switzerland (since 2006), E391a Experiment at KEK, Tsukuba, Japan (since 2005), Belle Experiment at KEK, Tsukuba, Japan (since 1998)

[https://www.phys.ntu.edu.tw/webeng/member/main1.aspx?mem\\_id=163](https://www.phys.ntu.edu.tw/webeng/member/main1.aspx?mem_id=163)

**Yer** İTÜ Fizik Mühendisliği Bölümü Seminer Salonu (FEB L1 Z\_\_ )  
**Zaman** 08 Kasım 2019 Cuma  
15.00 (14.45 Çay- Kahve İkram servisi)