

# MATH COLLOQUIUM

## **Rigid and non-smoothable Schubert classes**

**İzzet Coşkun**  
**University of Illinois, Chicago**

**Date** : Wednesday, December 16, 2009

**Time** : 14:00

**Place** : TB 250, Boğaziçi Üniversitesi

**Abstract:** Given a cohomology class in a projective variety, when can it be represented by a smooth subvariety? When is a variety rigid? When does a variety admit non-trivial deformations? When can it be deformed to a smooth subvariety? I will explore these questions in concrete examples and discuss a complete characterization of Schubert classes in Grassmannians that are rigid. The talk will be elementary and should be accessible to anyone either with some familiarity with singular or DeRham cohomology or a willingness to believe in pictures.

**Tea and coffee will be served at 15:00**