**ME 125/225F**-  Hydrodynamic Instability and Turbulence

**Instructor**: Alban Sauret

**Course Description:**Hydrodynamic instabilities and turbulent flows are ubiquitous in fluid mechanics, from natural phenomena to industrial and technological applications. The goal of the course is to provide an introduction to the transition to unstable and turbulent flows. We will discuss some classical hydrodynamic instabilities and the analytical tools available to predict their existence and the patterns generated. The second part of the class will focus on turbulence and the methods of statistical analysis available to provide a description of such flows.