

Title: Measuring the Sea Surface Salinity from the space: from the mathematical challenges to the oceanographic applications.

Abstract:

Ocean salinity is a key physical-chemical variable that critically contributes to the density-driven global ocean circulation and the Earth's climate. Despite its oceanographic importance the Sea Surface Salinity is an ocean Essential Climate Variable that only started to be estimated from space about 10 years ago, with the Soil Moisture and Ocean Salinity (SMOS) mission by the European Space Agency (ESA). In this talk we will present which have been the main data processing challenges of the mission and which have been some of the main of oceanographic achievements during this decade.