

## 2015 地球科學暑期學生專題研究計畫 (ESSSP 2015)

題目：探索太陽系天體

To explore the solar system

指導教授：曾瑋玲

This work will focus on the atmospheric evolutions of the solar system bodies, using with the radio observations on ground, the spacecraft data and numerical modeling. With analyzing the available ALMA data (publicly released on line), the available studies include: 1) the chemical composition, evolution and dynamics in Saturn' and Titan's atmosphere; 2) Io's tenuous atmosphere generated by volcanoes; and 3) the chemical composition and distribution in the cometary coma. In addition, combining the Cassini in-situ measurements and the numerical modeling, we will also work on 1) the coupling dynamics between the rings and the Saturnian system and 2) the ion-molecule chemistry in the Enceladus plumes. These work will improve our understanding of the formation and evolution of the solar system.

*\*After discussion, the student can choose any topic listed above he/she likes.*