**古氣候風與洋流與南島民族遷徙 (林博雄+ 任昊佳)**

**Austronesian migration in ancient time by using current climate & paleoclimatology data**

**JOINT SUPERVISOR: PO-HSIUNG LIN AND ABBY REN**

**INTRODUCTION**

The aim of this topic is to use surface wind and ocean current from paleo-climate simulation data and recent global daily grid data, to investigate the possible ship track of Austronesian peoples’ migration. Available paleo-climate data back to 1000 B.P. is under searching. But the CFSR (Climate Forecast System Reanalysis) daily data with ~38 km grid resolution from 1979 to 2010 is treated as current climate/weather dataset for diagnosis. Four scenarios (drift by ocean current only, current and surface wind, directional sail without goal and directional sail with goal) in designed model could be used to survey the possible path of rubbish drifting over ocean, and seasonal/annual difference of austronesian migration strategy.

**GOALS**:

1. To realize the driving force of sail boat by ocean current and air wind.
2. To quantitatively explore sail track under natural forces and its possible explain on human migration from mainland to pacific islands.
3. To examine the rubbish track over ocean and landfall beaches.

**REQUIREMENTS**:

1. Knowledge and interests in sail, Austronesian history and climate.
2. Skills on computer simulation and programming.
3. Reading/writing/speaking capabilities in English.