

## **Earth Sciences Summer Student Program 2022**

### **Construct a data archive and monitoring website for global heatwave events**

#### **建立全球熱浪事件資料庫與監測網頁平台**

Supervisor:

Primary supervisor: Prof. Cheng-Ta Chen (NTNU, Department of Earth Sciences)

#### **Project description:**

Global extreme heatwave events were tracked by applying an objective search algorithm to long-term reanalysis data. The proposed work will focus on construct an event data archive to document globally all the historical heatwave events including the event duration, affected area, magnitude, and integrated severity. The concurrent weather systems and environment conditions associated with the extreme heatwave events will also be categorized. The downloadable data archive and global heatwave event monitoring website will be built to facilitate the service to the interests in applying heatwave information to impact and adaptation study in the public health, agriculture, energy, and other related sectors.

#### **Preferred background of student candidates:**

- Senior or Junior students with good English skills are welcome.
- Strong knowledge/experience in computer (linux system) is essential.
- Good programming skills (NCL, python, C/Fortran) and experiences in constructing website and database would be a plus.

**Stipend during the research period (summer 2022) would be NT\$ 16,000 per month for July and August.**