## Graduate Institute of Environmental Education Historical Climate Reconstruction and Risk Analysis

My primary research interest focuses on climate change and human vulnerability and adaptation/resilience to the uncertain risks. The most common framework used in my research comes from coupled human and environmental system concepts which emphasize complicated feedbacks and interactions between human and natural systems. In addition to contemporary studies, my most recent interest extends into historical perspectives of climate and societal interactions. Our research team constructed a historical climate database REACHES, upon which we can foresee numerous new studies being derived digging into last two millennia climate reconstruction, variabilities, and climate-ecological-societal interactions including abrupt change and tipping points.

## Techniques used in study

Historical documentary archives, database management and programing, Geocomputation science, atmospheric statistical tools, data merging and field survey

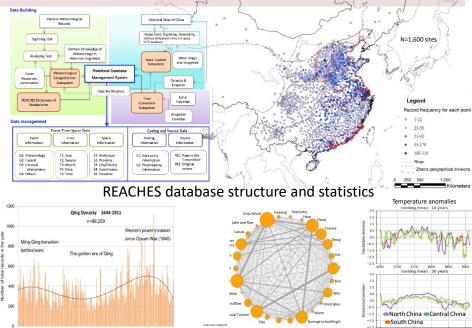




## **Background:**

PhD in Geography, National Taiwan University

**Funding:** Ministry of Science and Technology, Academia Sinica



## **Publications**

- Wang, P. K., Lin, K-H E., Liao, Y. C., et al. (2018) "Construction of the REACHES climate database based on historical documents of China", Scientific Data, DOI: 10.1038/sdata.2018.288.
- Brönnimann, S., Allan, Rob, Ashcroft, L., Lin, Kuan-Hui Elaine, et al. (2019) "Unlocking pre-1850 instrumental meteorological records: a global inventory", Bulletin of the American Meteorological Society, DOI 10.1175/BAMS-D-19-0040.1.
- 林冠慧、許景慈、王寳貫等(2019)從清朝文獻紀錄重建颱風序列與時空特徵,地理學報,93:81-107。
- Lin, Kuan-Hui Elaine, Lin, T. H., and Lee, H. C. (2017) "How does resilience matter: an empirical verification of the relationships between resilience and vulnerability", Natural Hazards, 88(2): 1229-1259.

