

Postdoctoral & Early Career Researcher Exchange (PECRE) Funding Report

Jing Yao (Jing.Yao@glasgow.ac.uk)
Urban Big Data Centre, University of Glasgow, Glasgow G12 8RZ

I would like to thank Scottish Alliance for Geoscience, Environment and Society (SAGES) for funding my visits to China to develop research collaborations with various scholars and institutes. As I did my bachelor and Master degrees at Nanjing University in Nanjing, China, I've been in connection with the GIScience community in China since 2005 when I started my job as a lecture in GIS at Hohai University in Nanjing, China. After I took the post of a lectureship at University of Glasgow in 2014, I've had more interactions with Chinese academics in GIScience. Following are the main academic activities I had since last summer, which are primarily funded by the PECRE funding from SAGES.

Academic Visits (Aug 2016, Dec 2016 & June 2017)

1. Prof. Yu Liu, School of Earth and Space Science, Peking University, China
(https://sess.pku.edu.cn/admin_aspcms/teacher/entedetail.asp?tID=CeWiRBIM)

I discussed future research collaboration and Postgraduate student exchange with Prof. Yu Liu, who is specialized in spatial data analysis and modeling. Prof. Liu is Associate Editor of *Computers, Environment and Urban Systems*, a top-ranked journal in the field of GIScience. I also attended a seminar organized by Prof. Liu and the speaker is Prof. Alan Murray from University of California, Santa Barbara. A photo is attached at the end.

2. Ms Ruomei Liu (deputy director), National Geomatics Center of China (NGCC)

I had a chat with Ms Ruomei Liu about the application of geospatial techniques for sustainable land use planning. Ms Liu suggested that we could start with some empirical studies in Jiangsu coastal area. We chose Dafeng as a case study city and developed a spatial optimization model for sustainable urban land use planning. Some initial results were presented at International Symposium On Locational Decisions (ISOLDE) XIV in Toronto, Canada (<https://inside.rotman.utoronto.ca/ISOLDE/>). We are currently working to improve the model and expecting to finish a journal article later this year.

- Jing Yao & Alan T. Murray. Location Modeling to Support Sustainable Urban Land Use Planning. *International Symposium On Locational Decisions (ISOLDE) XIV* in Toronto, Canada. July 09-14, 2017.

3. Mr Shiqin Li (deputy director), Hydrology Bureau of Jiangxi Province, China.

I discussed with Mr Shiqin Li about how to use geospatial techniques to improve flood risk evaluation and spatial planning of gauging stations. Currently we are collecting data

and doing some spatial modeling work as well. We expect to submit some journal articles in the near future.

4. Mr Jun Wan, Director of Emergency Command Center, Fire Department of Ministry of Public Security, Nanjing, Jiangsu, China

I discussed with Mr Jun Wan about how to use geospatial techniques to improve fire risk estimation and spatial planning of fire stations. We did some initial analysis on the spatiotemporal dynamics of fire incidents in Nanjing in the last twelve years (2002-2013) and submitted an article to *Applied Geography* earlier this year. We acknowledged the PECRE funding by SAGES in the manuscript and we will send you an author copy once the paper is formally published.

- Jing Yao & Xiaoxiang Zhang. Exploring Spatiotemporal Dynamics of Urban Fires: A Case of Nanjing, China. *Applied Geography* (submitted in May, 2017).

As I have benefited a lot from the PECRE funding, I would be more than happy to help other member of SAGES to build connections with Chinese scholars and institutes in the area of Geography and particularly in GIScience.

Photo 1: Me (2nd left, front row) with Profs. Yu Liu (3rd left, back row) and Alan Murray (2nd left, back row) at Peiking University in Aug, 2016.

