Yao **Yu**

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Education

**University of California, San Diego La Jolla, USA**

PhD student in Earth Sciences *August, 2018-June, 2018-now*

**Academia Sinica *Taipei, Taiwan***

Visiting Student *November, 2016-March, 2017*; *October, 2017-February, 2018*

**Wuhan University *Wuhan, China***

Master in Geodesy and Geomatics Engineering *September, 2015-June, 2018*

Bachelor in Geodesy and Survey Engineering *September, 2011-June, 2015*

* 3.74/4 GPA, 8th/406 in academic standing.

Research Experiences

*Supervised by Prof. Benjamin F. Chao*

* **Long-term Local Sea Level Rising by Double Mega Earthquakes** *November, 2017- May, 2018*
* Using ocean altimetry measurements in an attempt to detect geoid change induced by the 2004 Sumatra earthquake by the method of empirical orthogonal functions.
* **Low-degree Time-variable Gravity Field** *July, 2017-Present*
* Analyzing the low-degree time-variable gravity field in relation to the ~six-year oscillation found in the length-of-day variation;
* Analyzing analyze the gravitational spherical harmonic J2 in search of possible links with global scale mass redistributions and ocean oscillations.
* **Variations of the Argentine Gyre observed by GRACE and Ocean Altimetry** *July, 2016-March, 2018*
* Investigated the variations of the Argentine Gyre by the method of empirical orthogonal functions;
* Found that the Argentine Gyre undulates up-and-down in sea level variation temporally in pace with the Antarctic Oscillation, which is not verified before;
* Proved GRACE’s capability in giving a complete description of gravity signals at temporal resolutions (~25 days) higher than practiced hitherto.

*Supervised by Prof. Zhicai Luo*

* **GRACE Regional Time-variable Gravity Field Recovery** *September, 2014- July, 2016*
* Simulated the orbits of GRACE twin satellites;
* Recovered the surface mass variations in the South America region based on the energy conservation principle;
* Investigated how to reduce gravity signal leakage on the ocean-land boundaries.

Publications

**Yu, Y.**, B. F. Chao, D. García-García and Z. Luo (2018), Variations of the Argentine gyre observed in the GRACE time-variable gravity measurements and Ocean Altimetry, *Journal of Geophysical Research, Oceans, https://doi.org/10.1029/2018JC014189.*

Tanaka, Y., **Y., Yu**, and B. F. Chao, Gravity Field and Geoid Height Changes by the 2004/2012 Sumatra Earthquakes from Satellite Gravimetry and Satellite Altimetry, *under review*.

Chao, B.F., and **Y. Yu**, Variation of the equatorial moments of inertia in association with a 6-year rotary motion in the Earth, *in prep*.