邱　子　虔　助研究員 (任職期間：2008/1 ~ 2011/7/31)）
Chiu, Tze-Chien　Assistant Research Fellow (2008/1 ~ 2011/7/31)

研究領域：古海洋學, 古全球變遷, 珊瑚鈾系定年之應用
Specialty: Geochemistry, Paleoceanography

〔學　歷 **Education**〕

- 2000-2005 : Lamont-Doherty Earth Observatory (LDEO), Palisades, NY10964 / Department of Earth and Environmental Sciences (DEES), Columbia University, New York, NY 10027, U.S.A. (Doctor of Philosophy)
- 1998-2000 : Department of Geology, National Taiwan University (NTU), Taipei, TAIWAN. (Master of Science)
- 1994-1998 : Department of Geology, National Taiwan University, Taipei, TAIWAN. (Bachelor of Science)

〔經　歷 **Experience**〕

- January 2008 ~ July 2011: Assistant Research Fellow (Institute of Earth Sciences, Academia Sinica, Taipei 115, Taiwan.)
- August 2007 ~ December 2007: Research Assistant Professor (Earth Dynamic System Research Center, National Cheng Kung University, Tainan 701, Taiwan.)
- September 2005 ~ May 2007: Postdoctoral Research Scientist (Lamont-Doherty Earth Observatory, Palisades, NY 10964, U.S.A.)
- September 2005 ~ May 2006: Columbia Science Fellow and Lecturer in Earth and Environmental Sciences (Columbia University, New York, NY 10027, U.S.A.)

〔學會/榮譽 **Awards and Honors**〕

- 2007 :Selected to be listed in the upcoming 2008 (62nd) edition of Marquis Who's Who in America.
- 2006 :Abrupt Climate Change Fellowship, the Comer Science and Education Foundation.
- 2005 :Columbia Postdoctoral Science Fellowship, Columbia University, U.S.A.
- 2005 :Ph.D. Dissertation Passed With Distinction, Graduate School of Arts and Sciences, Columbia University, USA. (No more than 10% of all candidates receive the award.)
- 2002-2003 :Best Teaching Assistant Award, DEES, Columbia University, U.S.A.
- 2000-2005 :Faculty Fellowship, Graduate School of Arts and Sciences, Columbia University, U.S.A.

Professional Membership:

- American Geophysical Union
- Geological Society located in Taipei（中華民國地質學會）

〔著　作 **Publications**〕

1. Shen, C.C., A. Kano, M. Hori, K. Lin, **T.C. Chiu**, George S. Burr (2010)East Asian monsoon evolution and reconciliation of climate records from Japan and Greenland during the last deglaciation. Quaternary Science Reviews, 29(23-24), 3327-3335.
2. **Chiu, T.-C**. and W. S. Broecker (2008) Toward better paleocarbonate ion reconstructions: New insights regarding the $CaCO_3$ size index. Paleoceanography, 23, PA2216, doi:10.1029/2008PA001599. [PDF]
3. **Chiu, T.-C.**, Fairbanks, R.G., Cao, L., and Mortlock, R.A. (2007) Analysis of the atmospheric ^{14}C record spanning the past 50,000 years derived from high-precision $^{230}Th/^{234}U/^{238}U$, $^{231}Pa/^{235}U$ and ^{14}C dates on fossil corals. *Quaternary Science Reviews*, 26(1-2), 18-36.
4. **Chiu, T.-C.**, Fairbanks, R.G., Mortlock, R.A., Cao, L., Fairbanks, T.W., and Bloom, A.L. (2006) Redundant $^{230}Th/^{234}U/^{238}U$, $^{231}Pa/^{235}U$ and ^{14}C dating of fossil corals for accurate radiocarbon age calibration. *Quaternary Science Reviews*, 25(17-18), 2431-2440.
5. Fairbanks, R.G., **Chiu, T.-C.**, Cao, L., Mortlock, R.A., and Kaplan, A. (2006) Rigorous quality control criteria for screening coral samples and radiocarbon calibration data based on ^{14}C, $^{230}Th/^{234}U/^{238}U$ and $^{231}Pa/^{235}U$ dated corals - A reply to the comment by Yusuke Yokoyama and Tezer M. Esat on "Extending the radiocarbon calibration beyond 26,000 years before present using fossil corals" by T.-C. Chiu, R.G. Fairbanks, R.A. Mortlock, A.L. Bloom (Quaternary Science Reviews 24 (2005) 1797–1808). *Quaternary Science Reviews*, 25(21-22), 3084-3087.
6. **Chiu, T.-C.**, Fairbanks, R.G., Mortlock, R.A., and Bloom, A.L. (2005) Extending the radiocarbon calibration beyond 26,000 years before present using fossil corals. *Quaternary Science Reviews*, 24(16-17), 1797-1808. *(with Corrigendum)*
7. Fairbanks, R.G., Mortlock, R.A, **Chiu, T.-C.**, Cao, L., Kaplan, A., Guilderson, T.P., Fairbanks, T.W., Bloom, A.L., Grootes, P.M., and Nadeau, M.-J. (2005) Radiocarbon calibration curve spanning 0 to 50,000 years BP based on paired $^{230}Th/^{234}U/^{238}U$ and ^{14}C dates on pristine corals. *Quaternary Science Reviews*, 24(16-17), 1781-1796.
8. Mortlock, R.A., Fairbanks, R.G., **Chiu, T.-C.**, and Rubenstone, J. (2005) $^{230}Th/^{234}U/^{238}U$ and $^{231}Pa/^{235}U$ ages from a single fossil coral fragment by multi-collector magneticsector inductively coupled plasma mass spectrometry. *Geochimica et Cosmochimica Acta*, 69(3), 649-657.
9. Shackleton., N.J., Fairbanks, R.G, **Chiu. T.-C.**, and Parrenin, F. (2004) Absolute calibration of the Greenland time scale: implications for Antarctic time scales and $D^{14}C$. *Quaternary Science Reviews*, 23(14-15), 1513-1522.
10. Löwemark, L., Chen, C.-H., Huh, C.-A., Lee, T.-Q., Ku, Y.-P., Wei, K.-Y., Chen, C.-W., **Chiu, T.-C.**, and Chen, M.-T. (2004) Biogenic reworking of tephra layers in the CV-4 South China Sea (core MD972142) and the Celebes Sea (core MD012388). *Berita Sedimentologi*, 19(1), 31-41.
11. Wei, K.-Y., **Chiu, T.-C.**, and Chen, Y.-G. (2003) Toward establishing a maritime proxy record of the East Asian summer monsoons for the late Quaternary. *Marine Geology*, 201, 67-79.
12. Chen, M.-T., Shiau, L.-J., Yu, P.-S., **Chiu, T.-C.**, Chen, Y.-G., and Wei, K.-Y. (2003) 500000-year records of carbonate, organic carbon, foraminiferal sea-surface temperature from the southeastern South China Sea (near Palawan Island). *Palaeogeography, Palaeoclimatology, Palaeoecology*, 197(1-2), 113-131.
13. Wei, K.-Y., **Chiu, T.-C.**, and Chen, Y.-G. (2000) Planktic foraminiferal oxygen isotope record of the last 350 thousand years of Core MD972142, southeastern South China Sea; chronostratigraphy, orbital forcing and paleoceanographic implications. *Journal of the Geological Society of China*, 43(3), 393-408.
14. Yu., P.-S., **Chiu, T.-C.**, Chen, M.-T., Wei, K.-Y., and Chen, Y.-G. (2000) Planktic foraminifer faunal assemblage and sea-surface temperature variations in a "warmpool" South China Sea record of the past 400,000 years; IMAGES Core MD972142. *Journal of the Geological Society of China*, 43(3), 467-496.

Conference Abstracts and Presentations:

1. **Chiu, T.-C.** and Broecker, W.S. (2007) Towards better paleo-carbonate ion reconstructions - a new insight regarding the CaCO3 size index. The 9th International Conference on Paleoceanography, Shanghai, China
2. Fairbanks, R.G., Mortlock, R.A, **Chiu, T.-C.**, Cao, L., Kaplan, A., Bloom, A.L., Grootes, P.M., and Nadeau, M.-J. (2006) Radiocarbon calibration curve spanning 0 to 50,000 years BP based on 230Th/234U/238U, 231Pa/235U and 14C dates on pristine corals. The 19th International 14C Conference, Oxford, UK.
3. **Chiu, T.-C.**, Fairbanks, R.G., Cao, L., Mortlock, R.A., and Kaplan, A. (2005) Atmospheric radiocarbon record for the past 50,000 years via uranium-series and radiocarbon dating of pristine fossil corals. PP54B-05 (oral session), AGU Fall Meeting. *EOS, Transactions, American Geophysical Union*, 86(52).
4. Nadeau, M.-J., Grootes, P.M., Oriwall, A., Rieck, A., Voelker, A. H. L., Sarnthein, M., Shackleton, N., Vautravers, M., Fairbanks, R.G., **Chiu, T.-C.**, Genty, D., and Huels, M. (2005) Radiocarbon concentrations beyond 40 kyr BP and 14C calibration. The 10th International Conference on Accelerator Mass Spectrometry, Berkeley, California.
5. **Chiu, T.-C.**, Fairbanks, R.G., and Mortlock, R.A. (2004) Radiocarbon calibration between 30,000 and 50,000 years before present using fossil corals. PP32A-03 (oral session), AGU Fall Meeting. *EOS, Transactions, American Geophysical Union*, 85(47), F1158.
6. **Chiu, T.-C.**, Fairbanks, R.G., Mortlock, R.A., and Guilderson, T. (2003) Atmospheric radiocarbon production between 30,000 and 50,000 years B.P. and the influence of geomagnetic field intensity fluctuations. GP11C-0265 (poster session), AGU Fall Meeting. *EOS, Transactions, American Geophysical Union*, 84(46), F528.
7. Fairbanks, R.G., Mortlock, R.A., Guilderson, T. and **Chiu, T.-C.** (2003) Radiocarbon calibration using high precision 230Th/234U/238U and 14C measurements on pristine corals. The XVI INQUA Congress, Reno, Nevada.
8. Löwemark, L., Shiau, L.-J., Chen, M.-T., Huang, C.-C., Yu, P.-S., Wei, K.-Y., and **Chiu,T.-C.** (2002) TOC and δ13Corg records of monsoon-driven paleoproductivity variations in the southeastern South China Sea (IMAGES core MD972142) over the past 900 ka. Chapman Conference on Continent-Ocean Interactions within the East Asian Marginal Seas, San Diego, USA
9. Wei, K.-Y., **Chiu, T.-C.**, Gaillot, P., and Chen, Y.-G. (2001) Climatic teleconnection between the South China Sea and Central Chinese Loess Plateau during the past 870,000 years. PP51B-05, AGU Fall Meeting. *EOS, Transactions, American Geophysical Union*, 82(47), F795.
10. Fairbanks, R.G., Mortlock, R.A., Guilderson, T., Rubenstone, J., **Chiu, T.-C.**, and Hubbard, D.K. (2001) Radiocarbon calibration via U/Th/Pa on pristine corals. *Abstracts with Programs, Geological Society of America*, 36(6), 22.
11. **Chiu, T.-C.**, Wei, K.-Y., and Chen, Y.-G. (1999) Oxygen isotope stratigraphy of the last 350 thousand years of core MD972142 in the southeastern South China Sea. OS31B-05 (poster session), AGU Fall Meeting. *EOS, Transactions, American Geophysical Union*, 80(46), F533.
12. **Chiu, T.-C.**, Wei, K.-Y., and Chen, Y.-G. (1999) Oxygen isotope stratigraphy of the southeastern South China Sea and its paleoceanographic significance. (Awarded poster) *Annual Meeting, The Geological Society of China*, TAIWAN.
13. Wei, K.-Y., **Chiu, T.-C. (presenter)**, and Chen, Y.-G. (1999) Oxygen isotope stratigraphy of the last 350 thousand years of Core MD972142 in southeastern South China Sea. (oral session) *"Quaternary Paleomonsoon and Paleoceanography of the East Asia"* Meeting Abstract, National Museum of Natural Science, TAIWAN.
14. Yu, P.-S., Chen, M.-T., Wei, K.-Y., **Chiu, T.-C.**, and Chen, Y.-G. (1999) Foraminiferal faunal sea-surface temperature variations in the "warm-pool" South China Sea over the past 400,000 years (IMAGES Record MD972142). OS52A-13 (poster session), AGU Fall Meeting. *EOS, Transactions, American Geophysical Union*, 80(46), F586.