

CURRICULUM VITAE

林殿順 (ANDREW TIEN-SHUN LIN)

Department of Earth Sciences & Institute of Geophysics
National Central University
No. 300 Jungda Road, Chungli, Taoyuan, Taiwan
Phone: (+886)-03-4262782 (office direct line)
E-mail: andrew1@ncu.edu.tw
Fax: (+886)-03-4222044
URL: <http://basin.earth.ncu.edu.tw/People/principal.htm>



Education

UNIVERSITY OF OXFORD

Department of Earth Sciences
D.Phil. Geology and Geophysics, 2001

NATIONAL TAIWAN UNIVERSITY

Institute of Geology
M. Sc. Geology, 1991

NATIONAL CHENG-KUNG UNIVERSITY

Department of Earth Sciences
B. Sc. Geology, 1988

Experience

NATIONAL CENTRAL UNIVERSITY

- Assistant Professor August 2002 - Present

CHINESE PETROLEUM CORPORATION, TAIWAN

- Petroleum Geologist 1991-1996, 2001-2002

Current Researches

Geodynamics and kinematics of foreland basins and mountain belts, sequence stratigraphy, gas hydrate exploration, CO₂ geo-sequestration, marine geological mapping

Professional Services

- 2009: Workshop organizer (with 3 others): Taiwan-Switzerland Workshop on Source to Sink Relationships and Petroleum Occurrences in Foreland Basin Systems
- 2009: Field-trip leader (with Lee, Yuan-Hsi): Post-Taiwan-Switzerland workshop field excursion: Sedimentation and tectonics in the Taiwan mountain belts and foreland basin
- 2007~2009 Member of the Stratigraphy Committee, Geological Society Located in Taipei
- Convener (with Huang, Shi-Tsann), Session ST1: Stratigraphy and Paleontology, Joint Annual Meeting of the Geological Society Located in Taipei and Chinese Geophysical Society, 7-8 May, 2008.

- 2003~2007 National Member of the Committee for Quaternary Geology Research, Geological Society Located in Taipei
- Member of Program Committee (with 4 others), International Conference on Gas Hydrate: Energy, Climate and Environment, 4-5 October 2007, Taipei, Taiwan.
- Convener (with Shea, Kai-Shuan), Session ST1: Stratigraphy and Paleontology, Taiwan Geosciences Assembly, 15-18 May, 2007, Taoyuan, Taiwan.
- Member of the International Science Advisory Board for the 17th International Sedimentological Congress 2006
- Convener (with R.W. Dalrymple, T. Tamura), Session TS1-6: Shelf and shallow-marine systems, 17th International Sedimentological Congress, 27th August - 1st September 2006, Fukuoka, Japan
- Field-trip leader (with Chu, Hao-Tsu), FE-B15: Tectonics and sedimentation of the active Taiwan mountain belt, 3 September - 7 September 2006, Post-Congress field excursion of the 17th International Sedimentological Congress.
- Member of Scientific Committee (with 7 others), Geodynamics and Environment in East Asia International Conference and 5th Taiwan-France Earth Science Symposium, 24-29 November 2005, Taitung, Taiwan.
- Convener (with Frederic Mouthereau), Session B: Sedimentation and Tectonics, Geodynamics and Environment in East Asia International Conference and 5th Taiwan-France Earth Science Symposium, 24-29 November 2005, Taitung, Taiwan.

Honors and Awards

- Excellence in Teaching Award in 2006 of the Earth Science College, National Central University
- Excellence in Teaching Award in 2005 of the Earth Science College, National Central University
- Excellence Mentor Award in 2007 of the National Central University
- Outstanding Mentor Award in 2006 of the National Central University
- Outstanding Mentor Award in 2005 of the National Central University
- Outstanding Mentor Award in 2004 of the National Central University
- Overseas Ph.D. scholarship (1996-2000), Ministry of Education, ROC

Professional Affiliations

- Geological Society Located in Taipei (Member)
- Chinese Geophysical Society (Member)
- International Association of Sedimentologists (Member)
- Geological Society of America (Member)
- American Geophysical Union (Member)

Publications

ARTICLES (Peer reviewed)

1. Wang, Y., Chung, S.-H., Chen, S.-C., Lin, S., Liu, C.-S., **Lin, A.T.**, Schnurle, P., Yang, T.F., Jiang, W.-T., 2009. Geological and geochemical investigations of gas hydrate accumulations in the accretionary wedge of offshore southwestern Taiwan. *Journal of Asian Earth Sciences* (submitted)
2. Lin, C.-C., **Lin, A.T.***, Liu, C.-S., Schnurle, P., Chen, G.-Y., Liao, W.-Z., 2009. Geological controls on BSR occurrences in the incipient arc-continent collision zone offshore southwest Taiwan. *Marine and Petroleum Geology*, 10.1016/j.marpetgeo.2008.11.002 (in press).
3. **Lin, A.T.**, Yao, B., Hsu, S.-K., Liu, C.-S., Huang, C.-Y., 2009. Tectonic features of the incipient arc-continent collision zone of Taiwan: Implications for seismicity. *Tectonophysics*, 10.1016/j.tecto.2008.11.004 (in press).
4. **Lin, A.T.**, Liu, C.-S., Lin, C.-C., Schnurle, P., Chen, G.-Y., Liao, W.-Z., Teng, L.S., Chuang, H.-J., Wu, M.-S., 2008. Tectonic features associated with the overriding of an accretionary wedge on top of a rifted continental margin: An example from Taiwan. *Marine Geology* 255, 186-203, 10.1016/j.margeo.2008.10.002.
5. Chiang, C.-W., Chen, C.-S., Unsworth, M., Chen, C.-C., **Lin, A.T.**, Hsu, H.-L. 2008. Fault zone resistivity structure and monitoring at the Taiwan Chelungpu Drilling Project (TCDP). *Terrestrial, Atmospheric and Oceanic Sciences* 19(5), 473-479, doi:10.3319/TAO.2008.19.5.473(T).
6. Hsu, S.-K., Yeh, Y.-C., Lo, C.-L., **Lin, A.T.**, 2008. Linkage between crustal magnetization and earthquakes in Taiwan. *Terrestrial, Atmospheric and Oceanic Sciences* 19(5), 445-450, doi:10.3319/TAO.2008.19.5.445(T).
7. Clift, P.D., **Lin, A.T.**, Carter, A., Wu, F., Draut, A.E., Lai, T.-H., Fei, L.-Y., Schouten, H., Teng, L.S., 2008. Post-collisional collapse in the wake of migrating arc-continent collision in the Ilan Basin, Taiwan. in Draut, A.E., Clift, P.D., Scholl, D.W. (eds) *Formation and Applications of Sedimentary Record in Arc Collision Zones*, Geological Society of America Special Papers, 436, 257-278, doi: 10.1130/2008.2436(12).
8. **Lin, A.T.**, Wang, S.-M., Hung, J.-H., Wu, M.-S., Liu, C.-S., 2007. Lithostratigraphy of the Taiwan Chelungpu-fault Drilling Project-A borehole and its neighboring region, central Taiwan. *Terrestrial, Atmospheric and Oceanic Sciences*, 18(2), 223-241, doi: 10.3319/TAO.2007.18.2.223(TCDP).
9. Cheng, P.-H., **Lin, A.T.**, Ger, Y.-I., Chen, K.-H., 2006. Resistivity structures of the Chelungpu Fault in the Taichung area, Taiwan. *Terrestrial, Atmospheric and Oceanic Sciences*, 17(3), 547-561.
10. **Lin, A.T.**, Chen, M.-L., 2005. Time-depth conversion: An example from the Vulcan sub-basin of northwest shelf Australia. *Bulletin of Exploration and Production Research*, 27, 591-596. (in Chinese)
11. Teng, L.S., **Lin, A.T.**, 2004. Cenozoic tectonics of the China continental margin: insights from Taiwan. in Malpas, J., Fletcher, C. J., Aitchinson, J. C. & Ali, J. (eds) *Aspects of the Tectonic Evolution of China*. Geological Society, London, Special Publications, 226, 313-332.
12. **Lin, A.T.**, Watts, A. B., Hesselbo, S. P., 2003. Cenozoic stratigraphy and subsidence history of the

South China Sea margin in the Taiwan region. *Basin Research*, 15 (4), 453-478, doi:
10.1046/j.1365-2117.2003.00215.x.

13. **Lin, A.T.**, Watts, A. B., 2002. Origin of the West Taiwan Basin by orogenic loading and flexure of a rifted continental margin. *Journal of Geophysical Research*, 107 (B9), 2185, doi:10.1029/2001JB000669.
14. Deramond, J., Delcaillau, B., Souquet, P., Angelier, J., Chu, H-T., Lee, J.-F., Lee, T.-Q., Liew, P.-M., **Lin, A.T.**, Teng, L.S., 1996. Signatures de la surrection et de la subsidence dans les bassins d'avant chaine actifs: les Foothills de Taiwan (de 8 Ma a l'Actuel). *Bull. Soc. Geol. France*, 1996, 167, 1, 111-123.
15. Delcaillau, B., Deramond, J., Souquet, P., Angelier, J., Chu, H.-T., Lee, J.-C., Lee, T.-Q., Lee, T.-F., Liew, P.-M., **Lin, A.T.**, 1994. Tectono-sedimentary records of two arc-continent collisions in the northwestern foreland of the mountain belt of Taiwan. *C.R. Sci. Acad. Paris*, 318, 985-991.

*: Corresponding author

BOOKS AND OTHERS

1. **Lin, A.T.** 1991. Lithofacies and the sedimentary environment evolution of the Plio-Pleistocene Series in the southwestern Taiwan foothills region. MSc thesis, National Taiwan University, 93pp. (in Chinese)
2. **Lin, A.T.** 2001. Cenozoic stratigraphy and tectonic development of the west Taiwan basins. D.Phil Thesis, University of Oxford, 246 pp.
3. Chu, H.-T. and **Lin, A.T.** (2006) Tectonics and sedimentation of the active Taiwan mountain belt. 17th International Sedimentological Congress, 2006 Fukuoka, Field Excursion Guidebook (Edited by Ito, M., Yagishita, K., Ikehara, K., and Matsuda, H.), Sedimentological Society of Japan.

Research

Research and teaching are two fundamental things that I have engaged in National Central University since 2002. My research has been focused on the study of Taiwan sedimentary basins and the applied aspects for the study of subsurface rocks. Below is a list of research projects during 2004-2009 which have been out by Basin Research Group, NCU.

Research projects conducted (as P.I.)

Period	Project	Sponsor
08/2003 - 07/2004	Stratigraphy of the boreholes of the Taiwan Chelungpu-fault Drilling Project and its neighboring region and the development of the Taiwan foreland basin (1/3)	National Science Council
08/2004 - 07/2005	Stratigraphy of the boreholes of the Taiwan Chelungpu-fault Drilling Project and its neighboring region and the development of the Taiwan foreland basin (2/3)	National Science Council
03/2004 12/2004	Fault-seal integrity of the Timor Sea off northwest Australia	Bureau of Energy, MOEA
08/2005 - 07/2006	Stratigraphy of the boreholes of the Taiwan Chelungpu-fault Drilling Project and its neighboring region and the development of the Taiwan foreland basin (3/3)	National Science Council
08/2006 - 07/2007	Temporal and spatial records of sediment volumes of the late Cenozoic Taiwan foreland basin (1/3)	National Science Council
08/2007 - 07/2008	Temporal and spatial records of sediment volumes of the late Cenozoic Taiwan foreland basin (2/3)	National Science Council
06/2007 12/2007	A study on hydrocarbon stratigraphic traps	Taiwan CPC, MOEA
08/2008 - 07/2009	Temporal and spatial records of sediment volumes of the late Cenozoic Taiwan foreland basin (3/3)	National Science Council
09/2008 - 12/2008	Investigation and monitoring the special geological hazards in metropolitan Taipei (1/4) – Geological and geophysical data collection and analysis, offshore northeast Taiwan	Central Geological Survey, MOEA
01/2009 - 12/2009	Investigation and monitoring the special geological hazards in metropolitan Taipei (2/4) – Geological and geophysical data collection and analysis, offshore northeast Taiwan	Central Geological Survey, MOEA

Research Projects conducted (as co-P.I.)

Period	Project	Sponsor
02/2004 - 12/2004	Geological exploration of gas hydrate prospects offshore southwestern Taiwan – Geophysical investigation Sub-project: Tectono-sedimentary features of the gas hydrate-bearing sediments offshore SW Taiwan (1/4)	Central Geological Survey, MOEA
01/2005	Geological exploration of gas hydrate prospects offshore southwestern Taiwan – Geophysical investigation	Central Geological

- 12/2005	Sub-project: Tectono-sedimentary features of the gas hydrate-bearing sediments offshore SW Taiwan (2/4)	Survey, MOEA
01/2006 - 12/2006	Geological exploration of gas hydrate prospects offshore southwestern Taiwan – Geophysical investigation Sub-project: Tectono-sedimentary features of the gas hydrate-bearing sediments offshore SW Taiwan (3/4)	Central Geological Survey, MOEA
06/2006 12/2006	Revising the draft of the “Stratigraphy Code of the Republic of China”	Central Geological Survey, MOEA
05/2006 12/2006	1:100,000 scale marine geological mapping offshore Taiwan (1/2)	Central Geological Survey, MOEA
02/2007 12/2007	1:100,000 scale marine geological mapping offshore Taiwan (2/2)	Central Geological Survey, MOEA
01/2007 - 12/2007	Geological exploration of gas hydrate prospects offshore southwestern Taiwan – Geophysical investigation Sub-project: Tectono-sedimentary features of the gas hydrate-bearing sediments offshore SW Taiwan (4/4)	Central Geological Survey, MOEA
05/2007 - 11/2007	An assessment on the reuse and geosequestration of carbon dioxide (1/3) Sub-project: Assessment on the potential geological storage of carbon dioxide in the sedimentary rocks of Taiwan	Bureau of Energy, MOEA
01/2008 - 12/2008	Investigation and evaluation of gas hydrate resource potential in the offshore area of southwestern Taiwan: Seismic and heat flow studies Sub-project: Tectono-sedimentary features of the gas hydrate-bearing sediments offshore SW Taiwan (1/4)	Central Geological Survey, MOEA
04/2008 - 11/2008	An assessment on the reuse and geosequestration of carbon dioxide (2/3) Sub-project: Data collection and analysis on the sedimentary strata of southwest Taiwan	Bureau of Energy, MOEA
01/2009 - 12/2009	Investigation and evaluation of gas hydrate resource potential in the offshore area of southwestern Taiwan: Seismic and heat flow studies Sub-project: Tectono-sedimentary features of the gas hydrate-bearing sediments offshore SW Taiwan (2/4)	Central Geological Survey, MOEA

Teaching

Teaching in the University involves three aspects: courses (class lectures), mentor to undergraduates, and graduate student supervision. The courses that I teach at National Central University can be divided into two levels: undergraduate and postgraduate levels. Undergraduate courses include Sedimentary Geology (GP3087), Field Geology (GP3014), Practice of Field Geology (GP3015), Geology Field Excursion (GP3095, with Dr. W.-M. Chen), Taiwan Regional Geology (GP4031, with Drs. J.-H. Hung and C.-P. Chang), and Special Topics in Earth Sciences (GP4097-L), and the postgraduate courses include Basin Analysis (GP6057), Sequence Stratigraphy (GP7048), and Seminar (GP6095, with Drs. C.-C. Chen and P.-F. Chen). Except for the seminar-type courses (i.e., GP4097-L and GP6095), I developed course lecture notes for all courses, and all the course materials are put on my teaching web page at: <http://basin.earth.ncu.edu.tw/Course/Courses.htm>. Almost all the lecture material are written in English and the course web page is designed especially for web-learning.

My results of teaching may be comprehended by the results of student evaluation carried out by the University administration and done in the end of each course. Class students evaluate my teaching by giving marks ranging from 1 (very poor) to 5 (excellent) for 17 questionnaires listed in the evaluation form. The following table includes student evaluations for the recent four years (2005-2008). My evaluation average is 4.57 during 2005-2006, which is way above the average of the University-wide standard. Because of my excellent teaching records I was one of the recipients of the Excellence in Teaching Award of the Earth Science College in 2005 and 2006, respectively.

A.T. Lin Recent Teaching with student evaluations during 2005-2008

Undergraduate Courses			
Year	Course	No. of students	Student evaluation
2005 1 st semester	Sedimentary Geology	49	4.57
2006 1 st semester	Sedimentary Geology	44	4.57
2007 1 st semester	Sedimentary Geology	44	4.62
2008 1 st semester	Sedimentary Geology	43	4.64
2005 2 nd semester	Field Geology	15	4.82
2006 2 nd semester	Field Geology	17	4.36
2007 2 nd semester	Field Geology	10	4.91
2005 2 nd semester	Practice in Field Geology	15	4.81
2006 2 nd semester	Practice in Field Geology	17	4.36
2007 2 nd semester	Practice in Field Geology	10	4.87
2005 1 st semester	Taiwan Regional Geology	20	4.62
2006 1 st semester	Taiwan Regional Geology	21	4.13
2007 1 st semester	Taiwan Regional Geology	33	4.43
2008 1 st semester	Taiwan Regional Geology	24	4.63
2007 1 st semester	Geology Field Excursion	20	4.57
Postgraduate Courses			

2005.1 st	Basin Analysis	13	4.51
2006.1 st	Basin Analysis	6	5.0
2007.1 st	Basin Analysis	12	4.68
2008.1 st	Basin Analysis	14	4.54
2005.2 nd	Sequence Stratigraphy	17	4.47
2007.2 nd	Sequence Stratigraphy	13	4.54

Mentor to undergraduates

Since 2002, I have served as a mentor for undergraduates. I was one of the recipients of the University's undergraduate mentor award in the year of 2004, 2005, and 2006, respectively and one of the two recipients of university-wide outstanding mentorship in 2007. In each year, the award recognizes around 12 professors among ~500 university faculty members who achieve outstanding mentorship with students. Below is a table outlining my mentorship during the past few years. In the table, student's evaluation (from 1 to 5) indicates if he/she would recommend me as one of the recipient for mentor award with 1 representing strongly disagree and 5 indicating strongly agree.

A.T. Lin Recent mentorship with student evaluations during 2002-2006

Semester	Number of students	Student's evaluation (from 1 to 5)
2002 2nd	6	4.75
2003 1st	6	4.5
2004 2nd	11	4.7
2005 1st	11	4.57
2005 2nd	11	4.64
2006 1st	14	4.67

Graduate student supervision

I currently supervise 3 PhD students and 4 MSc students as of February 2009. Seven MSc students have finished their studies. Below is a list for their names and thesis titles.

Current Students	
Lin, Che-Chuan (PhD)	Tectonics and gas hydrate occurrences offshore southwest SW Taiwan
Chen, Guan-Yu (PhD)	Post-orogenic collapse in the northern Taiwan orogenic belt and its adjacent offshore
Liao, Wei-Zhi (PhD)	Recent sedimentary processes and neotectonics offshore southwest Taiwan
Chiu, Wei-Yi (MSc)	Sequence stratigraphy and basin development in northwest Taiwan since the Oligocene
Yang, Chien-Nan (MSc)	Numerical modeling on geological storage of carbon dioxides
Pan, Zun-You (MSc)	Sedimentology and magnetostratigraphy of the foreland sequences in NW Taiwan

	Huang, An-Ho (MSc)	Clay mineralogy and diagenesis of Cenozoic sedimentary rocks in NW Taiwan
Past Students		
2004	Lin, Che-Chuan (MSc)	Structure and sedimentary characteristics of gas hydrate-bearing sediments off southwest Taiwan
2005	Wang, Shun-Min (MSc)	Lithostratigraphy and sedimentary facies studies of the cores from the Taiwan Chelungpu-fault Drilling Project A
2005	Chen, Guan-Yu (MSc)	Structures, physiography and development of the Penghu submarine canyon off southwest Taiwan
2006	Chen, Mei-Ling (MSc)	Sediment velocity structures in the Taiwan Strait and the coastal plain of west Taiwan
2007	Liao, Wei-Zhi (MSc)	Recent sedimentary processes and neotectonics in the frontal orogenic wedge offshore southwest Taiwan
2007	Chiang, Shao-Ping (MSc)	Early development of the central Taiwan foreland basin revealed from stratigraphic record
2007	Liang, Shen-Hsiung (MSc)	Basin development and paleo-stress analysis of the southwest Taiwan foreland basin