

CV of Jimmy Jiao

Personal Details

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Main Research Interests

Submarine groundwater discharge and its environmental and ecological effects, dynamic interaction between seawater and groundwater, subsurface airflow induced by sea tides and pumping tests, hydrogeology and hydrogeochemistry in aquifer-aquitard systems in river basins, impact of human activities on coastal groundwater regimes, confined groundwater zone and slope instability in weathered igneous rocks

Education

- **Ph.D.**, in Civil Engineering
School of Civil Engineering, The University of Birmingham, Birmingham, U. K.
- **M.Eng.**, in Hydrogeology; **B.Eng.**, in Hydrogeology
Department of Hydrogeology and Engineering Geology, China University of Geosciences, Wuhan, Hubei, China

Outline of Professional Experience

- July 2010-present **Professor**
Department of Earth Sciences, University of Hong Kong, Hong Kong
- Jan. 2003-June 2010 **Associate Professor**
Department of Earth Sciences, University of Hong Kong, Hong Kong
- 1997-Dec. 2002 **Assistant Professor**
Department of Earth Sciences, University of Hong Kong, Hong Kong

Awards, Honours and Professional Services

- 2023, M. King Hubbert Award, National Ground Water Association, USA.
- 2023, O.E. Meinzer Award, Hydrogeology Division, Geological Society of America, USA
- 2022, IAH-Great Britain and Hydrogeology Group of the Geological Society London, Ineson Lecture: Coastal Hydrogeology, November 8.
- 2011, Recipient of the John Hem Excellence in Science and Engineering Award, National Ground Water Association, USA.
- 2011-2012, Recipient of Award for Teaching Excellence in the Faculty of Science in the University of Hong Kong.
- Elected: Fellow, American Society of Civil Engineers, since December 2011
- Elected: Fellow, Geological Society of America, since May 2003
- Elected: Fellow, Geological Society of London, since May 1999

- Publication selected as an “AGU Journal Highlight” in *Geophysical Research Letters*, June, 2004 and reported by English media including *CNN*, *ABC*, *MSNBC* and media of other languages such as French, Italian, Spanish and Vietnamese
- 2001– 2002, Board of Directors, American Society of Civil Engineers, Hong Kong Section.

Publications

Book

Jiao JJ & V Post, 2019, *Coastal Hydrogeology*, Cambridge University Press.

SCI Journal Papers

- 232 Chen, G., Jiao, J.J., Jiang, C. and Luo, X. 2024. Surrogate-assisted level-based learning evolutionary search for geothermal heat extraction optimization. *Renewable and Sustainable Energy Reviews* 189, 113860.
- 231 Liang, W., Liu, T., Wang, Y., Jiao, J.J., Gan, J. and He, D. 2023. Spatiotemporal-aware machine learning approaches for dissolved oxygen prediction in coastal waters. *Sci Total Environ* 905, 167138.
- 230 Liu, Y., Song, Y. and Jiao, J.J. 2023. Submarine Groundwater Discharge Strengthens Acidification in the Coastal Semi-Closed Bays. *Geophys Res Lett* 50(17), e2023GL103788.
- 229 Lu, M., Luo, X., Jiao, J.J., Li, H., Kuang, X., Wang, X., Feng, Y. and Zheng, C. 2023. Uncovering the processes of microbial community assembly in the near-surface sediments of a climate-sensitive glacier-fed lake. *Journal of Environmental Management* 345, 118714.
- 228 Wang, T., Zhang, K., Li, H., Zheng, Y., Luo, M., Zeng, Z., Yu, S., Shen, C. and Jiao, J.J. 2023. Multiple Seepage-Faces in Tidal Flat With Very Gentle Slopes. *Geophys Res Lett* 50(14), e2023GL104189.
- 227 Yu, S., Jiao, J.J., Luo, X., Li, H., Wang, X., Wang, Q., Yao, M., Guo, Y., Deng, Z. and Zuo, J. 2023. Vertical leaching of paleo-saltwater in a coastal aquifer–aquitard system of the Pearl River Delta. *J Hydrol* 626, 130168.
- 226 Sheng C, Jiao JJ, Luo X, Zuo J, Jia L, Cao J. Offshore freshened groundwater in the Pearl River estuary and shelf as a significant water resource. *Nature Communications*. 2023 Jun 24;14(1):3781-.
- 225 Chen G, Luo X, Jiao JJ, Jiang C. Fracture network characterization with deep generative model based stochastic inversion. *Energy*. 2023;273(C).
- 224 Yu S, Jiao JJ, Luo X, Li H, Wang X, Zhang X, Yao M, Zuo J, Liang W, Lu M. Evolutionary history of the groundwater system in the Pearl River Delta (China) during the Holocene. *Geology*. 2023 May;51(5):481-5.
- 223 Shan J, Yang Z, Kuang X, Jiao JJ. Impact of high-permeability preferential flow zones on pumping-induced airflow in unconfined aquifer. *Hydrological Processes*. 2023 Mar;37(3):e14855.
- 222 Zhou JQ, Guo LG, Jiao JJ, Luo X. Geometry-Based Prediction of Solute Transport Process in Single 3D Rock Fractures Under Laminar Flow Regime. *Journal of Geophysical Research: Solid Earth*. 2023 Mar;128(3):e2022JB025542.

- 221 Huang Z, Yeh PJ, Jiao JJ, Luo X, Pan Y, Long Y, Zhang C, Zheng L. A new approach for assessing groundwater recharge by combining GRACE and baseflow with case studies in karst areas of southwest China. *Water Resources Research*. 2023 Feb;59(2):e2022WR032091.
- 220 Cheng K, Luo X, Jiao JJ & Yu S (2023) Storm accelerated subsurface *Escherichia coli* growth and exports to coastal waters. *Journal of Hazardous Materials* 441: 129893.
- 219 Mao R & Jiao JJ (2023) Analytical study of falling-head test in confined aquifer with consideration of non-instantaneous injection. *Journal of Hydrology* 616: 128834.
- 218 Mao R, Luo X, Jiao JJ & Li H (2023) Molecular diffusion and pore-scale mechanical dispersion controls on time-variant travel time distribution in hillslope aquifers. *Journal of Hydrology* 616: 128798.
- 217 Chen G, Luo X, Jiang C & Jiao JJ (2022) Surrogate-assisted level-based learning evolutionary search for heat extraction optimization of enhanced geothermal system. *arXiv preprint arXiv:221207666*.
- 216 Chen G, Luo X, Jiao JJ & Xue X (2022) Data-driven evolutionary algorithm for oil reservoir well-placement and control optimization. *Fuel* 326: 125125.
- 215 Cheng K, Jiao JJ, Luo X & Yu S (2022) Effective coastal *Escherichia coli* monitoring by unmanned aerial vehicles (UAV) thermal infrared images. *Water Research* 222: 118900.
- 214 Cheng K, Luo X, Jiao JJ & Yu S (2022) Delineating *E. coli* occurrence and transport in the sandy beach groundwater system by radon-222. *Journal of Hazardous Materials* 431: 128618.
- 213 He Q, Kuang X, Chen J, Jiao JJ, Liang S & Zheng C (2022) Subglacial meltwater recharge in the Dongkemadi River Basin, Yangtze River source region. *Groundwater* 60: 434-450.
- 212 Jiao JJ (2022) A water supply system in Kowloon Peninsula, Hong Kong in the 1890s. *Groundwater*.
- 211 Lu M, Wang X, Li H, Jiao JJ, Luo X, Luo M, Yu S, Xiao K, Li X & Qiu W (2022) Microbial community assembly and co-occurrence relationship in sediments of the river-dominated estuary and the adjacent shelf in the wet season. *Environmental Pollution* 119572.
- 210 Sheng C, Jiao JJ, Liu Y & Luo X (2022) Impact of major nearshore land reclamation project on offshore groundwater system. *Engineering Geology* 303: 106672.
- 209 Shi X, Luo X, Jiao JJ & Zuo J (2022) Dominance of Evaporation on Lacustrine Groundwater Discharge to Regulate Lake Nutrient State and Algal Blooms. *Water Research* 118620.
- 208 Zhang X, Jiao JJ & Guo W (2022) How Does Topography Control Topography-Driven Groundwater Flow? *Geophysical Research Letters* 49: e2022GL101005.
- 207 Zhang X, Jiao JJ, Li H, Zheng Y, Yang S & Lian E (2022) Salinization process in a topographically closed saline lake estimated by radium, barium, and chloride mass balances. *Journal of Hydrology* 615: 128722.
- 206 Zou Y, Kuang X, Feng Y, Jiao JJ, Liu J, Wang C, Fan L, Wang Q, Chen J & Ji F (2022) Solid water melt dominates the increase of total groundwater storage in the Tibetan Plateau. *Geophysical Research Letters* 49: e2022GL100092.

- 205 Zhang, X., Li, H., Jiao, J.J., Luo, X., Kuang, X., Mao, R. and Hu, W., 2022. Fractal behaviors of hydraulic head and surface runoff of the nested groundwater flow systems in response to rainfall fluctuations. *Geophysical Research Letters*, p.e2021GL093784.
204. Sheng, C., Jiao, J.J., Xu, H., Liu, Y. and Luo, X., 2021. Influence of land reclamation on fresh groundwater lenses in oceanic islands: Laboratory and numerical validation. *Water Resources Research*, 57(10), p.e2021WR030238.
203. Liu, K., Luo, X., Jiao, J.J., Gu, J.D. and Aravena, R., 2021. Gene abundances of AOA, AOB, and anammox controlled by groundwater chemistry of the Pearl River Delta, China. *China Geology*, 4(3), pp.463-475.
202. Zhang, X., Li, H., Jiao, J.J., Luo, X., Zuo, J., Lu, M., Liu, Y., Liang, W. and Kuang, X. 2021. Control factors on Nutrient Cycling in the Lake Water and Groundwater of the Badain Jaran Desert, China. *Journal of Hydrology*, 126408.
201. Liu, Y., Jiao, J.J., Liang, W., Santos, I.R., Kuang, X. and Robinson, C.E., 2021. Inorganic carbon and alkalinity biogeochemistry and fluxes in an intertidal beach aquifer: Implications for ocean acidification. *Journal of Hydrology*, p.126036.
200. Zhang, X., Luo, X., Jiao, J.J., Li, H., Lian, E., Yang, S., Kong, F., Kuang, X. and Zuo, J., 2021. Hydrogeochemistry and fractionation of boron isotopes in the inter-dune aquifer system of Badain Jaran Desert, China. *Journal of Hydrology*, p.125984.
199. Huang, Z., Jiao, J.J., Luo, X., Pan, Y. and Jin, T., 2021. Drought and Flood Characterization and Connection to Climate Variability in the Pearl River Basin in Southern China Using Long-Term GRACE and Reanalysis Data. *Journal of Climate*, 34(6), pp.2053-2078.
198. Kuang, X., Zheng, C., Jiao, J.J., Cherry, J.A. and Chen, J., 2021. An empirical specific storage-depth model for the Earth's crust. *Journal of Hydrology*, 592, p.125784.
197. Yin, W., Hu, L., Zheng, W., Jiao, J.J., Han, S.C. and Zhang, M. 2020. Assessing underground water exchange between regions using GRACE data. *Journal of Geophysical Research: Atmospheres* 125, e2020JD032570.
196. Kuang, X., Jiao, J.J., Shan, J. and Yang, Z., 2020. A modification to the van Genuchten model for improved prediction of relative hydraulic conductivity of unsaturated soils. *European Journal of Soil Science*.
195. Zhang, X., Jiao, J.J., Li, H., Luo, X. and Kuang, X., 2020. Effects of downward intrusion of saline water on nested groundwater flow systems. *Water Resources Research*, 56(10), e2020WR028377.
194. Cheng, K.H., Luo, X. and Jiao, J.J., 2020. Two-decade variations of fresh submarine groundwater discharge to Tolo Harbour and their ecological significance by coupled remote sensing and radon²²² model. *Water Research*, p.115866.
193. Kuang, X., Jiao, J.J., Zheng, C., Cherry, J.A. and Li, H., 2020. A review of specific storage in aquifers. *Journal of Hydrology*, 581, p.124383.
192. Kuang, X., Luo, X., Jiao, J.J., Liang, S., Zhang, X., Li, H. and Liu, J., 2019. Using stable isotopes of surface water and groundwater to quantify moisture sources across the Yellow River source region. *Hydrological Processes*, 33(13), pp.1835-1850.
191. Liang, W., Liu, Y., Jiao, J.J. and Luo, X., 2020. The dynamics of dissolved inorganic nitrogen species mediated by fresh submarine groundwater discharge and their impact on phytoplankton community structure. *Science of The Total Environment*, 703, p.134897.

190. Zhang, X., Liu, K., Li, P., Jiao, J.J., Dvornyk, V. and Gu, J.D., 2019. Molecular existence and diversity of nitrite-dependent anaerobic methane oxidizing (n-damo) bacteria in the Lakes of Badain of the Gobi Desert. *Geomicrobiology Journal*, 36(6), pp.522-532.
189. Liu Y, Jiao JJ, Mao R, Luo X, Liang W, Robinson CE. Spatial characteristics reveal the reactive transport of radium isotopes (^{224}Ra , ^{223}Ra , & ^{228}Ra) in an intertidal aquifer. *Water Resources Research* 55 (12), 10282-10302, 2019.
188. Kuang X, JJ Jiao, C Zheng, JA Cherry, H Li, 2019, A review of specific storage in aquifers. *Journal of Hydrology*, 124383.
187. Lu M, Luo X, Jiao JJ, Li H, Wang X, Gao J, Zhang X, Xiao K. Nutrients and heavy metals mediate the distribution of microbial community in the marine sediments of the Bohai Sea, China. *Environmental Pollution*.255, 2019 Aug 24:113069
186. Liu Y, Not C, Jiao JJ, Liang W, Lu M. Tidal induced dynamics and geochemical reactions of trace metals (Fe, Mn, and Sr) in the salinity transition zone of an intertidal aquifer. *Science of the Total Environment*. 2019 May 10;664:1133-49.
185. Huang, Z., Jiao, J. J., Luo, X., Pan, Y., & Zhang, C. (2019). Sensitivity Analysis of Leakage Correction of GRACE Data in Southwest China Using A-Priori Model Simulations: Inter-Comparison of Spherical Harmonics, Mass Concentration and In Situ Observations. *Sensors*, 19(14), 3149.
184. Song, Z., Li, H., Ma, Q., Zheng, C., Jiao, J. J., & Li, S. (2019). Analytical Solution of Tidal Loading Effect in a Submarine Leaky Confined Aquifer System. *Geofluids*, 2019.
183. Kuang, X., Luo, X., Jiao, J. J., Liang, S., Zhang, X., Li, H., & Liu, J. (2019). Using stable isotopes of surface water and groundwater to quantify moisture sources across the Yellow River source region. *Hydrological Processes*. 34 (2), 517-517.
182. Luo X, Jiao JJ. Unraveling controlling factors of concentration discharge relationships in a fractured aquifer dominant spring-shed: evidence from mean transit time and radium reactive transport model. *Journal of Hydrology*. 2019 Feb 15.
181. Kong F, Sha Z, Luo X, Du J, Jiao JJ, Moore WS, Yang Y, Su W. Evaluation of lacustrine groundwater discharge and associated nutrients, trace elements and DIC loadings into Qinghai Lake in Qinghai-Tibetan Plateau, using radium isotopes and hydrological methods. *Chemical Geology*. 2019 Feb 10.
180. Huang Z, Yeh PJ, Pan Y, Jiao JJ, Gong H, Li X, Güntner A, Zhu Y, Zhang C, Zheng L. Detection of large-scale groundwater storage variability over the karstic regions in Southwest China. *Journal of Hydrology*. 2019 Feb 1;569:409-22.
179. Luo X, Kuang X, Jiao JJ, Liang S, Mao R, Zhang X, Li H. Evaluation of lacustrine groundwater discharge, hydrologic partitioning, and nutrient budgets in a proglacial lake in the Qinghai-Tibet Plateau: using ^{222}Rn and stable isotopes. *Hydrology & Earth System Sciences*. 2018 Oct 1;22(10).
178. Luo, X., Jiao, J. J., Moore, W. S., Cherry, J. A., Wang, Y., & Liu, K. (2018). Significant chemical fluxes from natural terrestrial groundwater rival anthropogenic and fluvial input in a large-river deltaic estuary. *Water research*, 144, 603-615.
177. Xiao, K., Wu, J., Li, H., Hong, Y., Wilson, A. M., Jiao, J. J., & Shananan, M. (2018). Nitrogen fate in a subtropical mangrove swamp: Potential association with seawater-groundwater exchange. *Science of The Total Environment*, 635, 586-597.

176. Zheng, Y., Chen, S., Qin, H., & Jiao, J. (2018). Modeling the spatial and seasonal variations of groundwater head in an urbanized area under low impact development. *Water*, 10(6), 803.
175. Lee, K. H., Wang, Y. F., Wang, Y., Gu, J. D., & Jiao, J. J. (2018). Abundance and diversity of aerobic/anaerobic ammonia/ammonium-oxidizing microorganisms in an ammonium-rich aquitard in the Pearl River Delta of South China. *Microbial ecology*, 76(1), 81-91.
174. Liu, Y., Jiao, J. J., & Cheng, H. K. (2018). Tracing submarine groundwater discharge flux in Tolo Harbor, Hong Kong (China). *Hydrogeology Journal*, 1-17.
173. Liu, Y., Liang, W., & Jiao, J. J. (2018). Seasonality of nutrient flux and biogeochemistry in an intertidal aquifer. *Journal of Geophysical Research: Oceans*.
172. Liu, Y., Jiao, J. J., Liang, W., & Luo, X. (2018). Using Tidal Fluctuation-Induced Dynamics of Radium Isotopes (^{224}Ra , ^{223}Ra , and ^{228}Ra) to Trace the Hydrodynamics and Geochemical Reactions in a Coastal Groundwater Mixing Zone. *Water Resources Research*, 54(4), 2909-2930.
171. He, L., Gao, B., Luo, X., Jiao, J. J., Qin, H., Zhang, C., & Dong, Y. (2018). Health Risk Assessment of Heavy Metals in Surface Water near a Uranium Tailing Pond in Jiangxi Province, South China. *Sustainability*, 10(4), 1113.
170. Xiao, K., Wu, J., Li, H., Hong, Y., Wilson, A. M., Jiao, J. J., & Shanahan, M. (2018). Nitrogen fate in a subtropical mangrove swamp: Potential association with seawater-groundwater exchange. *Science of The Total Environment*, 635, 586-597.
169. Luo, X., Jiao, J. J., Liu, Y., Zhang, X., Liang, W., & Tang, D. (2018). Evaluation of Water Residence Time, Submarine Groundwater Discharge, and Maximum New Production Supported by Groundwater Borne Nutrients in a Coastal Upwelling Shelf System. *Journal of Geophysical Research: Oceans*, 123(1), 631-655.
168. Shi, X., Y. Wang, J. J. Jiao, J. Zhong, H. Wen, and R. Dong (2018), Assessing major factors affecting shallow groundwater geochemical evolution in a highly urbanized coastal area of Shenzhen City, China, *Journal of Geochemical Exploration*, 184, 17-27.
167. Liu, Y., Jiao, J. J., & Liang, W. (2018). Tidal fluctuation influenced physicochemical parameter dynamics in coastal groundwater mixing zone. *Estuaries and Coasts*, 41(4), 988-1001.
166. Liu, Y., J. J. Jiao, W. Liang, and X. Luo (2017), Tidal pumping induced nutrients dynamics and biogeochemical implications in an intertidal aquifer, *Journal of Geophysical Research: Biogeosciences*, 122(12): 3322-3342
165. Yin, W., L. Hu, and J. J. Jiao (2017), Evaluation of Groundwater Storage Variations in Northern China Using GRACE Data, *Geofluids*, 2017
164. Liu, Y., J. J. Jiao, W. Liang, and X. Kuang (2017), Hydrogeochemical characteristics in coastal groundwater mixing zone, *Applied Geochemistry*, 85, 49-60.
163. Luo, X., K. L. Kwok, Y. Liu, and J. Jiao (2017), A Permanent Multilevel Monitoring and Sampling System in the Coastal Groundwater Mixing Zones, *Groundwater*, 55(4), 577-587.
162. Luo X, Jiao JJ, Wang XS, Liu K, Lian E, Yang S. (2017). Groundwater discharge and hydrologic partition of the lakes in desert environment: Insights from stable ^{18}O and ^2H and radium isotopes. *Journal of Hydrology*. Mar 31;546:189-203.

161. Hu L, Jiao JJ. An innovative method to estimate regional-scale hydraulic diffusivity using GRACE data. *Hydrological Sciences Journal*. 2016 Nov 17;61(15):2694-703 (selected as the featured article).
160. Kwong, H. T., & Jiao, J. J. (2016). Hydrochemical reactions and origin of offshore relatively fresh pore water from core samples in Hong Kong. *Journal of Hydrology*, 537, 283-296.
159. Luo, Xin, and JJ Jiao. Submarine groundwater discharge and nutrient loadings in Tolo Harbor, Hong Kong using multiple geotracer-based models, and their implications of red tide outbreaks. *Water Research* (2016), 102, Pages 11–31
158. Kwong HT, Jiao JJ, Chan LS. A preliminary study on the offshore stratigraphy in Hong Kong and its hydrogeological implications. *Environmental Earth Sciences*. 2016 Jun 1;75(11):1-7.
157. Wang, X., Li, H., Luo, X., Jiao, JJ., Qu, W., & Wang, C. (2016). Using 224Ra to estimate eddy diffusivity and submarine groundwater discharge in Laizhou Bay, China. *Journal of Radioanalytical and Nuclear Chemistry*, 308(2), 403-411.
156. Liu Yi, Jiao JJ and Luo X (2016) Effects of inland water level oscillation on groundwater dynamics and land-sourced solute transport in a coastal aquifer. *Coastal Engineering* 114, 347-360
155. Kuang, XX, and Jiao JJ. Review on climate change on the Tibetan Plateau during the last half century. *Journal of Geophysical Research: Atmospheres* 121.8 (2016): 3979-4007.
154. Luo X, Jiao JJ, Wang X-S & Liu K (2016) Temporal 222 Rn distributions to reveal groundwater discharge into desert lakes: Implication of water balance in the Badain Jaran Desert, China. *J Hydrol* 534: 87-103.
153. Hu L & Jiao JJ (2016) An innovative method to estimate regional-scale hydraulic diffusivity using GRACE data. *Hydrological Sciences Journal*. (selected as featured article)
152. Wang Y, Jiao JJ, Zhang K & Zhou Y (2016) Enrichment and mechanisms of heavy metal mobility in a coastal quaternary groundwater system of the Pearl River Delta, China. *Sci Total Environ* 545: 493-502.
151. Kuang X, Jiao JJ & Wang Y (2016) Chloride as tracer of solute transport in the aquifer–aquitard system in the Pearl River Delta, China. *Hydrogeology Journal* 1-12.
150. Liu Y, Kuang X, Jiao JJ & Li J (2015) Numerical study of variable-density flow and transport in unsaturated–saturated porous media. *J Contam Hydrol* 182: 117-130.
149. Hu L & Jiao JJ (2015) Calibration of a large-scale groundwater flow model using GRACE data: a case study in the Qaidam Basin, China. *Hydrogeology Journal* 23: 1305-1317.
148. Kwong HT, Jiao JJ, Liu K, Guo H & Yang S (2015) Geochemical signature of pore water from core samples and its implications on the origin of saline pore water in Cangzhou, North China Plain. *Journal of Geochemical Exploration* 157: 143-152.
147. Jiao JJ, Zhang X, Liu Y & Kuang X (2015) Increased Water Storage in the Qaidam Basin, the North Tibet Plateau from GRACE Gravity Data. *PloS one* 10: e0141442.
146. Kuang X, Jiao JJ & Liu K (2015) Numerical studies of vertical Cl⁻, δ²H and δ¹⁸O profiles in the aquifer–aquitard system in the Pearl River Delta, China. *Hydrol Process* 29: 4199-4209.
145. Guo H, Zhang Z, Cheng G, Li W, Li T & Jiao JJ (2015) Groundwater-derived land subsidence in the North China Plain. *Environmental Earth Sciences* 74: 1415-1427.

144. Chen K, Yang C & Jiao JJ (2015) Rare Earth Elements Geochemistry and Provenance Discrimination of Sediments in Tolo Harbour, Hong Kong. *Marine Georesources & Geotechnology* 33: 51-57.
143. Wang X, Li H, Luo X, Jiao JJ, Qu W & Wang C (2015) Using ^{224}Ra to estimate eddy diffusivity and submarine groundwater discharge in Laizhou Bay, China. *J Radioanal Nucl Ch* 1-9
142. Jiao, J.J., Zhang, X. and Wang, X., 2015. Satellite-based estimates of groundwater depletion in the Badain Jaran Desert, China. *Scientific Reports*, 5(1), pp.1-6.
141. Wang, X., Li, H., Jiao, J. J., Barry, D. A., Li, L., Luo, X., ... & Qu, W. (2015). Submarine fresh groundwater discharge into Laizhou Bay comparable to the Yellow River flux. *Scientific reports*, 5.
140. Kuang, X., & Jiao, J. J. (2014). An integrated permeability-depth model for Earth's crust. *Geophysical Research Letters*, 41(21), 7539-7545.
139. Jiao, J. J., Shi, L., Kuang, X., Lee, C. M., Yim, W. W. S., & Yang, S. (2014). Reconstructed chloride concentration profiles below the seabed in Hong Kong (China) and their implications for offshore groundwater resources. *Hydrogeology Journal*, 23: 277-286.
138. Kuang, X., Jiao, J. J., Zhang, K., & Mao, D. (2014). Air and water flows induced by pumping tests in unconfined aquifers with low-permeability zones. *Hydrological Processes*, 28(21), 5450-5464.
137. Liu, K., Jiao, J. J., & Gu, J. D. (2014). Investigation on bacterial community and diversity in the multilayer aquifer-aquitard system of the Pearl River Delta, China. *Ecotoxicology*, 23(10), 2041-2052.
136. Kuang, X., & Jiao, J. J. (2014). A new equation for the soil water retention curve. *European Journal of Soil Science*, 65(4), 584-593.
135. Luo, X., Jiao, J. J., Moore, W. S., & Lee, C. M. (2014). Submarine groundwater discharge estimation in an urbanized embayment in Hong Kong via short-lived radium isotopes and its implication of nutrient loadings and primary production. *Marine pollution bulletin*, 82(1), 144-154.
134. Yang, L., Wang, X. S., & Jiao, J. J. (2015). Numerical Modeling of Slug Tests with MODFLOW Using Equivalent Well Blocks. *Groundwater*, 53(1), 158-163
133. Shi, L., & Jiao, J. J. (2014). Seawater intrusion and coastal aquifer management in China: a review. *Environmental Earth Sciences*, 72(8), 2811-2819.
132. Hu, L., & Jiao, J. J. (2014). Analytical studies on transient groundwater flow induced by land reclamation using different fill materials. *Hydrological Processes*, 28(4), 1931-1938.
131. Wang, Y., & Jiao, J. J. (2014). Multivariate statistical analyses on the enrichment of arsenic with different oxidation states in the Quaternary sediments of the Pearl River Delta, China. *Journal of Geochemical Exploration*, 138, 72-80.
130. Jiao JJ, 2014, Wells in China, Encyclopaedia of the History of Science, Technology and Medicine in Non-Western Cultures, Edited by Helaine Selin, 01/2014; Springer.
129. Du, J. Z., Moore, W. S., Hsh, H. F., Wang, G. Z., Scholten, J., Henderson, P., ... & Jiao, J. J. (2013). Inter-comparison of radium analysis in coastal sea water of the Asian region. *Marine Chemistry*, 156, 138-145.

128. Kuang, X., Jiao, J. J., & Li, H. (2013). Review on airflow in unsaturated zones induced by natural forcings. *Water Resources Research*, 49(10), 6137-6165.
127. Li, H., & Jiao, J.J. (2013). Quantifying tidal contribution to submarine groundwater discharges: A review. *Chinese Science Bulletin*, 58(25), 3053-3059.
126. Kuang XX, JJ Jiao, H Huang, JZ Qian, 2013, Air and water flows in a large sand box with a two-layer aquifer system, *Hydrogeology Journal*, V21, P977-985
125. Wang XS, JJ Jiao, Y Wang, JA Cherry, XX Kuang, K Liu, CM Lee and ZJ Gong, 2013, Accumulation and transport of ammonium in aquitards in the Pearl River Delta (China) in the last 10,000 years: conceptual and numerical models, *Hydrogeology Journal*, V21, P961-967
124. Wang Y, JJ Jiao, SY Zhu and YL Li, 2013, Arsenic K-edge X-ray absorption near-edge spectroscopy to determine oxidation states of arsenic of a coastal aquifer aquitard system, *Environmental Pollution*, V179, P160-166
123. Wang Y, JJ Jiao, JA Cherry, and CM Lee, 2013, Contribution of the aquitard to the regional groundwater hydrochemistry of the underlying confined aquifer in the Pearl River Delta, China, *Science of The Total Environment*, V461-462, p663-671
122. Tung S, JKC Leung, JJ Jiao, J Wiegand, W Wartenberg, 2013, Assessment of soil radon potential in Hong Kong, China, using a 10-point evaluation system, *Environmental Earth Sciences*, V68, P679-689, DOI: DOI 10.1007/s12665-012-1782-0
121. Lee CM, JJ Jiao, X Luo, WS Moore, 2012, Estimation of submarine groundwater discharge and associated nutrient fluxes in Tolo Harbour, Hong Kong, *Science of The Total Environment*, V433 P427-433 DOI: 10.1016/j.scitotenv.2012.06.073
120. Wang Y, JJ Jiao, JA Cherry, 2012, Occurrence and geochemical behavior of arsenic in a coastal aquifer-aquitard system of the Pearl River Delta, China, *Science of The Total Environment*, V427-428, p286-297
119. Wang Y, and JJ Jiao, 2012, Origin of groundwater salinity and hydrogeochemical processes in the confined Quaternary aquifer of the Pearl River Delta, China, *Journal of Hydrology*, v438-439, p112-124
118. Kuang, X, JJ Jiao, L Wan, X Wang, and D Mao, 2011, Air and water flows in a vertical sand column, *Water Resources Research*, doi:10.1029/2009WR009030
117. Jiao, JJ; Y Wang, Y, JA Cherry, XS Wang, BF Zhi, HY Du, DG Wen, 2010, Abnormally high ammonium of natural origin in a coastal aquifer-aquitard system in the Pearl River Delta, China, *Environmental Science & Technology*, 44, 7470-7475.
116. Hu LT and JJ Jiao, 2010, Modeling the influences of land reclamation on groundwater systems: a case study in Shekou peninsula, Shenzhen, China, *Engineering Geology*, 114(3-4), 144-153.
115. Chen KP, SY Tian, JJ Jiao, 2010, Macrobenthic community in Tolo Harbour, Hong Kong and its relations with heavy metals, *Estuaries and Coasts*, 33: 600-608 (This article was chosen as a feature for *Coastal and Estuarine Science News*, May 2010 for its strong implication for management of coastal areas)
114. Guo HP, JJ Jiao, 2010, Theoretical study of the impact of tide-induced airflow on hydraulic head in air-confined coastal aquifers, *Hydrological Sciences Journal*, 55(3), 435-445.
113. Chen KP & JJ Jiao, 2010, Spatio-temporal trends of heavy metals and source apportionment in Tolo Harbour, Hong Kong, *Environmental Earth Sciences*, 60(7), p1439-1445.

112. Guo HP, JJ Jiao, HL Li, 2010, Analytical study of groundwater response to tidal fluctuation in a two-zone aquifer, *Journal of Hydrology*, V381, p364-371
111. Chen CX, XX Kuang & JJ Jiao, 2010, Methods to Derive the Differential Equation of the Free Surface Boundary, *Ground Water*, 48(3), 329-332.
110. Jiao JJ, 2010, Crescent Moon Spring: A disappearing natural wonder in the Gobi Desert, China, *Ground Water*, 48(1) , P159 - 163
109. JJ Jiao and HP Guo, 2009, Airflow induced by pumping tests in unconfined aquifer with a low-permeability cap, *Water Resources Research*, V45, W10445
108. LT Hu, JJ Jiao and HP Guo, 2008, Analytical studies on transient groundwater flow induced by land reclamation, *Water Resources Research*, V44, W11427.
107. Jiao JJ, CM Leung and GP Ding, 2008, Change of groundwater system from 1888 to present in a highly-urbanized coastal area in Hong Kong, *Hydrogeology Journal* 16(8), 1527-1539
106. Guo HP, JJ Jiao, and EP Weeks, 2008, Rain-induced subsurface airflow and Lisse effect, *Water Resources Research* VOL. 44, W11427, doi:10.1029/2008WR006926.
105. Tse KC and JJ Jiao, 2008, Estimation of submarine groundwater discharge in Plover Cove, Tolo Harbour, Hong Kong by 222Rn, *Marine Chemistry*, 111 (3-4), 160-170
104. Guo HP, JJ Jiao and HL Li, 2008, Numerical study of the airflow in the unsaturated zone induced by sea tides, *Water Resources Research*, 44(6), W06402, Jun 2008
103. Jiao JJ, 2008, Ceramic models of wells in Han Dynasty (206 BC – AD 220), China, *Ground Water* 46 (5), Sept-Oct, 2008, 782-787
102. Ding, GP, JJ Jiao, and DX Zhang, 2008, Modelling study on impact of deep foundations of buildings on groundwater system, *Journal of Hydrology*, 22(12), p1857-1865.
101. Chen KP and JJ Jiao, 2008, Metal concentrations and mobility in sediment and groundwater in coastal reclamation areas: a case study in Shenzhen, China, *Environmental Pollution*, 151 (3), p576-584
100. Leung CM and JJ Jiao, 2008, Temporal variations of physical and chemical properties of a spring Hydrogeology of a spring in the urbanized spaces in the Mid-Levels area, Hong Kong: results of a one-year comprehensive monitoring programme, *Hydrological Processes* 22 (8), p1080-1092
99. Hu, LT, CX Chen, JJ Jiao, ZJ Wang, 2007, Numerical simulation on the Interaction between groundwater and surface water at the middle reaches of Heihe River Basin, China, *Hydrological Processes*, 21(20), September 2007, P2794-2806
98. Jiao JJ, A 5,600-Year-Old Wooden Well in Zhejiang Province, China, 2007, *Hydrogeology Journal*, 15: 1021-1029.
97. JM Huang, RQ Huang, JJ Jiao, Chen KP, 2007, Speciation and Mobility of Heavy Metals in Mud in Coastal Reclamation Areas in Shenzhen, China, *Environmental Geology*, 53 (1), p221-228, September.
96. Chen KP and JJ Jiao, 2007, Preliminary study on seawater intrusion and aquifer freshening near reclaimed coastal area of Shenzhen, China, *Water Science and Technology: Water Supply*, Vol 7 No 2 pp 137-145)

95. Guo HP and JJ Jiao, 2007, Analytical solutions for the impact of land reclamation on groundwater flow and seawater-terrestrial groundwater interface in a coastal hillside, *Ground Water*, Vol. 45, No. 3, May-June, pp 362-367
94. Chen KP, JJ Jiao, JM Huang, RQ Huang, 2007, Multivariate statistical evaluation of trace elements in groundwater in a coastal area in Shenzhen, China, *Environmental Pollution* Vol 147, pp 771-780
93. Qin SQ, JJ Jiao, CA Tang and ZG Li, 2006, Instability leading to coal bumps and nonlinear evolutionary mechanisms for a coal-pillar-and-roof system, *International Journal of Solids and Structures*, Vol. 43, Issues 25-26, P7407-7423
92. Leung CM and JJ Jiao, 2006, Use of Strontium Isotopes to Identify Buried Water Main Leakage Into Groundwater in a Highly Urbanized Coastal Area, *Environmental Science and Technology*, 40(21) pp 6575 – 6579
91. JJ Jiao, GP Ding & CM Leung, 2006, Confined groundwater near the rockhead in igneous rocks in the Mid-Levels area, Hong Kong, China, *Engineering Geology*, 84(3-4), p207-219.
90. Li, HL, JJ Jiao & ZH Tang, 2006, Semi-numerical simulation of groundwater flow induced by periodic forcing with a case-study at an island aquifer, *Journal of Hydrology* V327 (3-4), Page 438-446.
89. Cheng JM, JC McIntosh, XN Xie, JJ Jiao, 2006, Hydrochemistry of formation water with implication to diagenetic reactions in Sanzhao depression and Qijia-gulong depression of Songliao Basin, China, *Journal of Geochemical Exploration* 88, 86–90
88. Leung, CM & JJ Jiao, 2006, Heavy metal and trace element distributions in groundwater in natural slopes and highly urbanized spaces in Mid-Levels area, Hong Kong, *Water Research*, 40(4), 753-767
87. Leung, CM & JJ Jiao, 2006, Change of groundwater chemistry from 1896 to present in the Mid-Levels area, Hong Kong, *Environmental Geology*, v49 (7): p946-959
86. Qin, S. Q., Jiao, J. J., and Li ZG, 2006, Nonlinear Evolutionary Mechanisms of Instability of Plane-Shear Slope: Catastrophe, Bifurcation, Chaos and Physical Prediction. *Rock mechanics and Rock Engineering*, 39 (1), 59-76
85. Jiao, JJ, XS Wang and S Nandy, 2006, Preliminary assessment of the impacts of deep foundations and land reclamation on groundwater flow in a coastal area in Hong Kong, China, *Hydrogeology Journal*, v14 (1-2), p100-114
84. Leung, CM, JJ Jiao, J. Malpas, WT Chan and YX Wang, 2005, Factors affecting the groundwater chemistry in a highly-urbanized coastal area in Hong Kong: an example from the Mid-Levels area, *Environmental Geology*, 48(4-5), P480 – 495
83. Jiao, JJ, XS Wang and S Nandy, 2005, Confined groundwater zone and slope instability in weathered igneous rocks in Hong Kong, *Engineering Geology*, v80, p71-92
82. Weng, HX, XW Ma, Q Cheng, JJ Jiao, YC Qin, 2005, Genetic relation between Holocene transgression and chemical composition of the shallow groundwater in Hangzhou, China, *Environmental Geology*, 47 (8), pp. 1111 – 1119
81. Li, HL and JJ Jiao, 2005, One-dimensional airflow in unsaturated zone induced by periodic water table fluctuation, *Water Resources Research*, Vol. 41, No. 4, W04007
80. Wang, XS, CX Chen and JJ Jiao, 2004, Modified Theis equation by considering the bending effect of the confining unit, *Advances in Water Resources*, 27 (1): p981-990

79. Wang XS & JJ Jiao, 2004, Analysis of soil consolidation by vertical drains with double porosity model, *International Journal For Numerical And Analytical Methods In Geomechanics*, 28:1385-1400 (DOI: 10.1002/nag.391)
78. Jiao JJ & HL Li, 2004, Breathing of coastal vadose zone induced by sea level fluctuations, *Geophysical Research Letters*, Vol. 31, No. 13 L11502 10.1029/2004GL019572 (selected as an "AGU Journal Highlight" and reported by English media including CNN, ABC, MSNBC and media of other languages)
77. Jiao JJ and DG Wen, 2004, Perspectives on Chinese Ground Water Resources, *Ground Water*, 42(4), p488-490
76. Li, HL, JJ Jiao & M Luk, 2004, A falling-pressure method for measuring air permeability of asphalt in laboratory, *Journal of Hydrology*, Volume 286, Issues 1-4 , P69-77
75. Chen, CX, SP Pei, & JJ Jiao, 2003, Land subsidence caused by groundwater exploitation in Suzhou City, China, *Hydrogeology Journal*, v11 (2), p275-287
74. Xie XN, Jiao JJ, Li ST, and Cheng JM, 2003, Salinity variation of formation water and diagenesis reaction in abnormal pressure environments, *Science in China (Series D)* 46 (3): p269-284
73. Li, H & JJ Jiao, 2003, Influence of the tide on the mean watertable in an unconfined, anisotropic, inhomogeneous coastal aquifer, *Advances in Water Resources*, 26 (1): p9-16
72. Jiao JJ, Leung CM, Spreadsheets for the analysis of aquifer-test and slug-test data (Review article), *Ground Water*, 41 (1): 9-10 JAN-FEB 2003
71. Li HL, Jiao JJ, Tide-induced seawater-groundwater circulation in a multi-layered coastal leaky aquifer system, *Journal of Hydrology*, 274 (1-4): p211-224, APR 1 2003
70. Xie, XN, JJ Jiao, JM Cheng, 2003, Regional variation of formation water chemistry and diagenesis reaction in underpressured system: example from Shiwu depression of Songliao basin, NE China, *Journal of Geochemical Exploration* 78– 79, p585– 590
69. Xie, XN, JJ Jiao, ZH Tang, & C Zheng, Evolution of abnormally low pressure and its implications for the hydrocarbon system in the Southeast Uplift zone of Songliao Basin, China, *AAPG Bulletin*, 87(1), p 99-119, 2003
68. Li, H, and JJ Jiao, Influence of the tide on the mean watertable in an unconfined, anisotropic, inhomogeneous coastal aquifer, *Advances in Water Resources*, 26(1), p9-16, 2003
67. Li, H & JJ Jiao, Tidal groundwater level fluctuations in L-shaped leaky coastal aquifer system, *Journal of Hydrology*, 268(1-4): p234-243, 2002
66. Li, H. and JJ Jiao, Analytical solutions of tidal groundwater flow in coastal two-aquifer system, *Advances in Water Resources*, 25(4), p 417-426, 2002
65. Li, H., JJ Jiao, M. Luk, and K. Cheung, Tide-induced groundwater level fluctuation in coastal aquifers bounded by L-shaped coastlines, *Water Resources Research*, 38(3), 10.1029/2001WR000556, 2002
64. Qin SQ, Jiao JJ, Wang SJ, A nonlinear dynamical model of landslide evolution, *Geomorphology*, 43 (1-2): 77-85, 2002
63. Jiao, JJ, S Nandy, and H Li, 2001, Analytical studies on the impact of reclamation on groundwater flow, *Ground Water*, 39(6), p912-920

62. Qin, SQ, Jiao, JJ, Wang SJ, and Long HA, 2001, Nonlinear Catastrophe Model of Instability of Planar-slip Slope and Chaotic Dynamical Mechanisms of Its Evolution Process, *International Journal of Solids and Structures*. 38 (44-45), p8093-8109
61. Nandy, S & JJ Jiao, 2001, Groundwater flow analysis in the slope above Shum Wan Road, Hong Kong, *Environmental and Engineering Geoscience*, 7(3), p239-250
60. Li, H. and JJ Jiao, Analytical studies of groundwater-level fluctuation in a coastal confined aquifer overlain by a semi-permeable layer with storage. *Advances in Water Resources* 24(5), 2001, p565-573
59. Li, H. and JJ Jiao, Tide-induced groundwater fluctuation in a coastal leaky confined aquifer system extending under the sea, *Water Resources Research* 37(5), 2001, p. 1165-1171
58. Qin, S. Q., JJ Jiao, S Wang, A cusp catastrophe model of instability of slip-buckling slope. *Rock mechanics and Rock Engineering* 34 (2), 2001, p119-134
57. Jiao, JJ and Z. Tang, Reply to R. E. Volker and Q. Zhang's comments on "An analytical solution of groundwater response to tidal fluctuation in a leaky confined aquifer", *Water Resources Research*, 37(1), 2001, p187-188
56. Tang ZH and Jiao, JJ, A two-dimensional analytical solution for groundwater flow in a leaky confined aquifer near open tidal water, *Hydrological Processes*, 15 (4), 2001, p573-585
55. Zhang, J., JJ Jiao and J. Yang, In-Situ Rainfall Infiltration Studies at a Hillside, Hubei Province, China, *Engineering Geology*, 57, p31-38, 2000
54. Jiao, JJ and Z. Tang, 1999, An analytical solution of groundwater response to tidal fluctuation in a leaky confined aquifer, *Water Resources Research*, 35(3), p747-751
53. Chen, C. and JJ Jiao, 1999, Numerical Simulation of Pumping Tests in Multilayer Wells with Non-Darcian Flow in the Wellbore, *Ground Water*, 37(3), p465-474
52. Zheng C and JJ Jiao, Numerical simulation of tracer tests in a heterogeneous aquifer, *Journal of Environmental Engineering*, 124(6), 1998, p510-516
51. Jiao, JJ and C. Zheng, Abnormal fluid pressures caused by subsidence and erosion of sedimentary basins, *Journal of Hydrology*, 204, 1998, p124-137
50. Jiao, JJ, Reply to M. W. Kaweck's comments on "Investigation of extra recharge during pumping in Nottingham aquifer", *Ground Water*, 35(4), 1997, p562
49. Jiao, JJ and C. Zheng, The different characteristics of aquifer parameters and their implications on pumping-test analysis *Ground Water*, Vol. 35 (1), 1997, p25-29
48. Jiao, J. J., C. Zheng, and R. J-C., Hennem, Analyses of underpressured reservoirs for waste disposal, *Hydrogeology Journal*, 5(3), 1997, p19-31
47. Jiao, JJ, Investigation of extra recharge during pumping in Nottingham aquifer, *Ground Water*, Vol. 34 (5), 1996, p795-800
46. Jiao, JJ and D. N. Lerner, The use of sensitivity analysis to assist parameter zonation of a regional groundwater flow model, *Water Resources Bulletin*, 32(1), 1996, p75-87
45. Jiao, JJ, Sensitivity analysis of pumping-test data in non-uniform aquifers, *Hydrological Sciences Journal*, 40(6), 1995, p719-737

44. Jiao, JJ and K.R. Rushton, sensitivity of drawdown to parameters and its influence on parameter estimation for pumping tests in large-diameter wells, *Ground Water*, Vol.33(5), 1995, p794-800
43. Jiao, JJ, Reply to Prof. W. E. Kelly's comments on "Data-analysis methods for determining two-dimensional dispersive parameters", *Ground Water*, Vol.32(1), 1994, p152-153
42. Jiao, JJ, Data-analysis methods for determining two-dimensional dispersive parameters, *Ground Water*, Vol.31(1), 1993, p57-62

Non-SCI Journal Papers

41. Zhang JF, XM Liu, JJ Jiao, 2009, A Protection Scheme of Double Layers with Drainage Function for Expansive Soil Slopes, *Journal of Yangtze River Scientific Research Institute*, 26(11), 37-41 (in Chinese)
40. Jiao, JJ and HL Li, 2004, Subsurface airflow induced by natural forcings, *Advances in Earth Sciences*, 19(3), p413-421
39. Jiao JJ, XS Wang, JM Cheng and SP Pei, 2003, Academic thoughts and achievements of Professor Chen Chong Xi, *Earth Sciences – Journal of China University of Geosciences*, 28(5), 2003, p471-482 (in Chinese)
38. Wang XS, CX Chen, JJ Jiao, Theory on coupling of radial flow in a confined aquifer and bending of confining unit, *Earth Sciences – Journal of China University of Geosciences*, 28(5), 2003, p545-550 (in Chinese)
37. Li HL and JJ Jiao, Numerical simulation of tide-induced periodic air pressure fluctuations in coastal vadose zone, *Earth Sciences – Journal of China University of Geosciences*, 28(5), 2003, p505-510 (in Chinese).
36. Xie XN, JJ Jiao and HH Xiong, 2003, Underpressure system and forming mechanisms in the Shiwu Depression of Songliao Basin, *Earth Sciences – Journal of China University of Geosciences*, 28(1), p61-65 (in Chinese)
35. Jiao, JJ, 2002, Preliminary conceptual study on impact of land reclamation on groundwater flow and contaminant migration in Penny's Bay, *Hong Kong Geologist*, v18, 2002.
34. Jiao, JJ and S. Nandy, 2001, Confined groundwater zone and slope instability in hillsides of weathered igneous rock in Hong Kong, *Hong Kong Geologist*, Vol 7, p31-37, 2001.
33. Xu, Q., R. Q. Huang, Z. Y. Zhang, JJ Jiao, P. Zhou, X. B. Lu, and L. Y. Qin, Study on deformation and stability of high fill at Jiuzhai-Huanglong Airport by FLAC3D modeling, *Journal of Chengdu University of Technology*, V28, Suppl., Sep. 2001, p333-338 (in Chinese)
32. Qin, S. Q., Jiao, JJ, Predictable time scale of landslide, *Bulletin of engineering geology and environment*, 59(4), 2001, p307-312
31. Jiao, JJ, 2000, Modification of regional groundwater regimes by land reclamation, *Hong Kong Geologist*, Vol 6, p29-36.
30. Jiao, JJ, C. Zheng, Investigation of underpressurization caused by erosional unloading at the Guymon site, Oklahoma, *Oklahoma Geology Notes*. vol. 56, no. 6, 1996, pp253-254
29. Jiao, JJ, Grey analysis and modeling of the Dragon Spring karst system, in *Exploration of Geosciences* (English Edition), No. 6, 1992, Wuhan, the Press of China University of Geosciences.

28. Jiao, JJ, Lecture on Grey system theory and hydrogeology: (a) An introduction to grey system theory and grey hydrogeological system, *Site Investigation Engineering and Technology*, No. 5, 1987 (in Chinese)
27. Jiao, JJ, Lecture on Grey system theory and hydrogeology: (b) Grey analyzing and time series modeling of grey hydrogeological system, *Site Investigation Engineering and Technology*, No. 6, 1987 (in Chinese)
26. Jiao, JJ, Lecture on Grey system theory and hydrogeology: (c) Grey forecasting of hydrogeological systems, *Site Investigation Engineering and Technology*, No.1, 1988 (in Chinese)
25. Wang, M. and JJ Jiao, Lecture on Grey system theory and hydrogeology: (d) Grey decisions of hydrogeological systems, *Site Investigation Engineering and Technology*, No.2, 1988 (in Chinese)
24. Jiao, JJ and Z. Chen, An improved characteristic-rectangular finite element method in the solution of two-dimensional water-quality model transport problems, *Selection of Hydrogeology and Engineering Geology*, No. 6, 1987 (in Chinese)
23. Jiao, JJ, D. Wang, and X. Li., Study of the hydrodynamic dispersion in porous media by experiments. In *Environmental Geology Research in China*, ed. by C. Sun, Science Press, Beijing, China, 1987 (in Chinese)
22. Jiao, JJ, Methods for solving two-dimensional hydrodispersive parameters, *Geotechnical Investigation*, No. 6, 1987 (in Chinese)
21. Jiao, JJ, Control and readjustment of grey hydrogeological systems, *Hydrogeology and Engineering Geology*, No. 6, 1987 (in Chinese)
20. Jiao, JJ, Discussion on the contaminant transport theory and its application to field problems, *Site Investigation Engineering and Technology*, No.1, 1987 (in Chinese)
19. Jiao, JJ, Explanation of karst geyser by experiments, *Groundwater*, No. 4, 1986 (in Chinese)
18. Jiao, JJ, A semi-analytical approach for unsteady movement of groundwater in multi-aquifers with a 'window' between the aquifers, *Hydrogeology and Engineering Geology*, No. 6, 1984 (in Chinese)

Papers in Conference Proceedings

17. Jiao JJ, Submarine groundwater, an alternative source of water supply for Hong Kong? In *Proceedings of 2nd GWSP-Asia Network Workshop on Global Water System Hotspots in the Asian Region: Mega cities and Dams*, Sun Yat-sen University, June 8-11, 2006 Guangzhou, China
16. Jiao JJ and KC Tse, Submarine Groundwater Discharge and its Influence on Coastal environment in Tolo Harbor, Hong Kong, *Proceedings of 2nd International Conference on Estuaries & Coasts*, 2006, Guangzhou, China,
15. Wang FL and Jiao JJ, Preliminary numerical study on groundwater system at the Hong Kong International Airport, *4th International Symposium on Environmental Hydraulics and 14th Congress of Asia and Pacific Division, International Association of Hydraulic Engineering and Research*, 2004, Dec 2004, Hong Kong.

14. Jiao JJ, C Leung, and GP Ding, Confined groundwater at No. 52, Hollywood Road, Hong Kong, in *Proceedings of International Conference on Slope Engineering (Vol I)*, December, 8-10, 2003, Hong Kong, p316-321.
13. Jiao JJ and H Li, Tide-induced air pressure fluctuation in coastal unsaturated zones, Invited keynote speaker, in *Proceedings of International Symposium on Water Resources and the Urban Environment*, November 9-10, 2003, Wuhan, P. R. China, p10-13.
12. Li, H and JJ Jiao, Review of analytical studies of tidal groundwater flow in coastal aquifer systems, in *Proceedings of International Symposium on Water Resources and the Urban Environment*, November 9-10, 2003, Wuhan, P. R. China, p86-91
11. Leung C, JJ Jiao, JG Malpas and WT Chan, Hydrogeochemistry of the Mid-Levels area, Hong Kong, in *Proceedings of International Symposium on Water Resources and the Urban Environment*, November 9-10, 2003, Wuhan, P. R. China, p81-85
10. Li, H. and JJ Jiao, Numerical studies of tide-induced groundwater level change in a multi-layered coastal leaky aquifer system, XIV International Conference on *Computational Methods in Water Resources*, June 23-28, 2002, Delft, The Netherlands
9. Jiao, JJ and N Subhas, Preliminary discussion on the impact of extensive urbanization on groundwater regimes in coastal areas, In the *Proceeding of The 3rd Two Coasts-Three Regions & World Chinese Conference on Geological Sciences*, Hong Kong, China, December, 2001.
8. Li, H. and JJ Jiao, A method for analyzing laboratory test data for measuring air permeability, In the *Proceeding of The 3rd Two Coasts-Three Regions & World Chinese Conference on Geological Sciences*, Hong Kong, China, December, 2001.
7. Xie XN and Jiao, JJ, Abnormal pressure and fluid movement in sedimentary basins with oil and gas reservoirs, the the *Proceeding of The 3rd Two Coasts-Three Regions & World Chinese Conference on Geological Sciences*, Hong Kong, China, December, 2001.
6. Jiao, JJ, A confined groundwater zone in weathered igneous rocks and its impact on slope stability, In *Proceeding of the International Symposium on Hydrogeology and the Environment*, Wuhan, China, Oct. 17 – 20, 2000, p602-608.
5. Li, H and Jiao, JJ, Analytic solution of tide-induced groundwater level fluctuation in confined coastal aquifer bounded by an L-shaped coastline, In *Proceeding of the International Symposium on Hydrogeology and the Environment*, Wuhan, China, Oct. 17 – 20, 2000, p356-362.
4. Pei, S, C Chen, and Jiao, JJ, Geological hazards related to groundwater exploration—land subsidence in Suzhou City, China, In *Proceeding of the International Symposium on Hydrogeology and the Environment*, Wuhan, China, Oct. 17 – 20, 2000, p546-552.
3. Jiao, JJ and A. Malone, 2000, A hypothesis concerning a confined groundwater zone in slopes of weathered igneous rocks, in *Symposium on Slope Hazards and Their Prevention*, 8-10 May, 2000, Hong Kong, P. R. China, p165-170.
2. Jiao, JJ, S. Nandy, and A. Malone, Hydrogeological studies of the slope failure at Tuen Mun Highway Chainage 550, Hong Kong, in *Proceeding of the International Conference on Landslides, Slope Stability and Safety of Infra-Structures*, 25-31 July, 1999 in Singapore.
1. Jiao, JJ and K.R. Rushton, Using dispersive plume area to estimate dispersive parameters, *The 3rd International Conference on Ground Water Quality Research*, 1992, Dallas, Texas.

Invited Addresses and Keynote Speeches in national and international conferences

50. 2023 Jiu Jimmy Jiao, Chong Sheng, Shengchao Yu, and Xin Luo, Invited, Evolution of the groundwater system in the northern continental shelf of South China Sea since Late Pleistocene, *EGU 2023*, Vienna, , 23-28, April
49. 2022, Jiao JJ, Plenary Keynote talk, Contribution of Groundwater-borne Nutrients to New Productions in South China Sea, Impact, 49th *IAH Congress*, Wuhan China, 18-23 September.
48. 2022, IAH-Great Britain and Hydrogeology Group of the Geological Society London, Ineson Lecture: Coastal groundwater and its environmental, ecological, and engineering implications, November 8.
47. 2021, Jiao JJ, Keynote Speaker, Impact of large-scale land reclamation on coastal groundwater flow, *33rd National Geoscience Conference*, Bandar Baru Bangi, Malaysia, 5-9 April (online).
46. 2020, Jiao JJ and X Luo, Invited, The dynamics of dissolved inorganic nitrogen species mediated by fresh submarine groundwater discharge and their impact on phytoplankton community structure, *the 36th International Geological Congress*, New Delhi, India, 2-8 March (postponed due to Covid-19).
45. 2019, Jiao JJ and X Luo, Plenary Speaker, Submarine groundwater discharge (SGD) as a major nutrient source in South China Sea (SCS): From regional to continental scales, *The 9th World Chinese Conference of Geological Science*, Changchun, China (31 May – 2 June).
44. 2018, Jiao JJ, Invited, Groundwater Studies in Badain Jaran Desert from Satellite and Isotope Data, Department of Earth Sciences, University of College of London (July 23).
43. 2018, Jiao JJ, Invited, Groundwater Studies in Badain Jaran Desert from Satellite and Isotope Data, Centre d'Hydrogéologie et de Géothermie, Université de Neuchâtel (July 26)
42. 2018, Jiao JJ and X Luo, Invited, Submarine groundwater discharge (SGD) and SGD induced nutrients in a coastal upwelling shelf system, 45th IAH Congress- International Association of Hydrogeologists, Daejeon, Korea (9-14 September).
41. 2017, Jiao JJ and X Luo, Invited, Groundwater discharge and hydrologic partition of the lakes in desert environment: insights from stable $^{18}\text{O}/^{2}\text{H}$ and radium isotopes, *The Water Resources Dialogue: China-Africa Water Forum Series No 5*, Zimbabwe (July 31- August 3).
40. 2017, Jiao JJ, X Luo and R Mao, Invited, Quantification of benthic nutrient fluxes in South China Sea based on solute transport modeling of porewater chemistry in marine sediments, *The 5th Asia-Pacific Coastal Aquifer Management Meeting*, Da Nang, Vietnam (July 17-19).
39. 2016, Jiao JJ, Invited, Isotope techniques vs satellite data, *Technical Meeting (TM) on the coupled use of isotope tracers and Satellite/Remote Sensing data in Water Resources Assessment and Management*, organized by IAEA Isotope Hydrology Section, Vienna, Austria.
38. 2016, Jiao JJ and X Luo, Invited, Submarine Groundwater Discharge as a Significant Nutrient Source to the South China Sea, *The 24th Salt Water Intrusion Meeting and the 4th Asia-Pacific Coastal Aquifer Management Meeting*, Cairns, Australia.

37. 2014, Jiao JJ, Invited, Increased water storage in northern Tibetan Plateau (TP) from GRACE gravity data, *International Groundwater Forum*, Nanjing, China
36. 2013, Jiao JJ, Invited, Preliminary studies on groundwater in desert areas in Northwest China, Urbanization and Ecological Conservation: A View on *Groundwater*, Beijing, China
35. 2012, Jiao JJ, Invited, Submarine Groundwater: a Potential Source of Water Supply for Hong Kong, *International symposium on the celebration for 30th anniversary of the establishment of Dept. of Earth Environmental Sciences in Pukyong National University*, June 1, Korea.
34. 2011, Jiao JJ and HL Li, Featured talk, Tide-induced airflow in a coastal reclamation site in Hong Kong, *2nd Asia-Pacific Coastal Aquifer Management Meeting*, 8~21 Oct., Jeju Island, Korea
33. 2010, Jiao JJ, Invited, Submarine Groundwater Discharge: Past Experience in Hong Kong and Future Studies in China Sea, *International Groundwater Forum*, Beijing, China
32. 2011, Jiao JJ, Invited, Hydrogeology of Coastal Chinese Aquitards, *2nd Canadian Symposium on Aquitard Hydrogeology: Aquitards for Hazardous Waste Management and Aquifer Protection*, Ottawa, Canada, June 21-23.
31. 2010, Jiao JJ, Invited, Submarine Groundwater Discharge: Past Experience in Hong Kong and Future Studies in China Sea, *International Groundwater Forum*, Beijing, China
30. 2010, Jiao JJ, Invited, Characterization of hydraulic and transport properties of aquitards in the Pearl River Delta, China, *Western Pacific Geophysics Meeting*, 22–25 June 2010, Taipei, Taiwan
29. 2009, Jiao JJ, Keynote Speech, Airflow induced by pumping tests, *ModelCare2009, The 7th International Conference on Calibration and Reliability in Groundwater Modeling*, Wuhan, China.
28. 2009, Jiao JJ, Invited, Change of groundwater system in a highly-urbanized coastal area in hong kong over the last century, *World City Water Forum 2009 - Technical Conference "Ground Water and Management "*, Incheon, Korea
27. 2009, Jiao JJ, Invited, Preliminary Study on Ammonium-rich groundwater in the Pearl River Delta, *International Groundwater Forum*, Jilin, China
26. 2009, Jiao JJ, Invited, Impact of coastal land reclamation on groundwater systems, *Workshop on Groundwater - the Invisible Geological Resource*, University of Greifswald, Germany
25. 2009, Jiao JJ, Invited, Mathematical and Chemical Studies on Physico-chemical Processes in Groundwater in Coastal Reclaimed Areas, *Birdsall-Dreiss Lecture and Workshop on Field Characterization and Modeling of Aquifer Heterogeneity*, National Central University, Taiwan.
24. 2008, Jiao JJ, Invited, Submarine groundwater discharge to Tolo Harbour, Hong Kong, *American Geophysical Union (AGU) Fall Meeting*, San Francisco, California.
23. 2008, Jiao JJ, Invited, Mathematical and chemical studies on physico-chemical processes in groundwater in coastal reclaimed areas, *8th National Conference on Engineering Geology*, Shanghai, China
22. 2008, Jiao JJ and CM Leung, Invited, Use of Strontium Isotopes to Identify Buried Water Main Leakage Into Groundwater in a Highly Urbanized Coastal Area, Soil and Groundwater Contamination and Remediation, Xian, China

21. 2008, Jiao JJ, Invited, Analytical and numerical studies on modification of groundwater system by coastal land reclamation, *International Groundwater Forum*, Jilin, China
20. 2008, Jiao JJ, Invited, Submarine groundwater, an alternative source of water supply for Hong Kong? Symposium on Environmental Changes and Sustainable Development in Coastal Areas of South-East China Sea, Organized by Tropical and Subtropical Environment Committee China Quaternary Research Association, Jinjiang, Fujian, to be held in May, 2008
19. 2008, Jiao JJ, Plenary Lecture, Modifications of groundwater regimes in a highly-urbanized coastal area in Hong Kong over the last century, *Environmental and Geological Science and Engineering*, Malta, September 11-13, 2008
18. 2007, Jiao JJ & Guo HP, Invited, Airflow induced by pumping in two-layered aquifer system, *International Groundwater Forum*, June 22-23, Nanjing, China
17. 2007, Jiao JJ, keynote speaker, Confined groundwater zone and slope instability in weathered igneous rocks in Hong Kong, *International Forum on Landslide*, Landslide Research Centre, University of Seoul, Korea, May 9, 2007 (In English with simultaneous translation to Korea).
16. 2006, Jiao JJ, Invited, Groundwater pollution in Chinese mainland, *Eco Expo Asia - International Trade Fair on Environmental Protection*, 27-30 October, Asia World-Expo, Hong Kong (In English with simultaneous translation to Mandarin).
15. 2006, Jiao JJ and KC Tse, Invited, Study on Submarine Groundwater Discharge to Tolo Harbour Using Radon and Radium Isotopes, *International Symposium on Groundwater and Environment*, Organized by Institute of Geology and Geophysics Chinese Academy of Sciences, 22-23 July, Beijing, China.
14. 2006, Jiao JJ, Invited, Submarine groundwater, an alternative source of water supply for Hong Kong? *Global water system hotspots in the Asian region: mega cities and dams*, 2nd GWSP-Asia Network workshop, June 8-11, Guangzhou, China
13. 2005, Jiao JJ, Invited, Marine hydrogeology in Southeast China Sea, *International Workshop on Challenges and Opportunities in the Chinese Groundwater Sciences*, organized by Natural Sciences Foundation of China, June 16-17, Beijing
12. 2005, Jiao JJ, Invited, Preliminary Study on Submarine Groundwater Discharge in Tolo Harbour, Hong Kong, *International Symposium of Frontiers of earth sciences: tectonic evolvement of China margin seas and continent margin geology and its response of environment evolvement*, June 20-25, Guangzhou, China
11. 2005, Jiao JJ, Invited, Some Hydrogeological Issues in Coastal China, *Symposium on 11th 5-year plan of Hydrogeological Investigations in China*, Organized by China Geological Survey, January 14-21, 2005, Fragrant Hill Hotel, Beijing, China
10. 2005, Jiao JJ, Invited, Preliminary studies on physical and chemical processes in the subsurface system in the land reclaimed from the sea, *Coastal Geo-Environment and Urban Development in China*, Oct 2004, Tianjin, China.
9. 2004, Jiao JJ, keynote speaker, On submarine Groundwater Discharge, IPACES 4th Annual Meeting and International Symposium: Frontiers of Earth Sciences: *Earth, Environment, and Human Impacts*, June 14-17, 2004, Chengdu, China
8. 2004, Jiao JJ and H Li, Invited, Air flow induced by tidal fluctuation, Invited speaker, *International Symposium on Frontiers of Earth Sciences: Earth, Environment, and Human Impacts*, IPACES 2004 Annual Meeting to be held in June 14-17, Chengdu, China.

7. 2003, Jiao JJ and H Li, Keynote speaker, Tide-induced air pressure fluctuation in coastal unsaturated zones, *International Symposium on Water Resources and the Urban Environment*, November 9-10, Wuhan, P. R. China
6. 2002, Jiao JJ, Invited, Impact of Urbanization on Regional Groundwater Flow, *Environmental Dynamics Seminar Series*, The University of Western Australia, Australia.
5. 2002, Jiao JJ, Invited, Urban hydrogeology, *Workshop on National Funding Strategies for Hydrogeologic Studies in the 21st Century*, jointly organized by Natural Sciences Foundation of China and China Geological Survey, Nov 17-20.
4. 2001, Jiao JJ, Invited, Symposium on important geotechnical and environment issues related to western development in China, Chengdu, China, October 10-14.
3. 2001, Jiao JJ, Invited, Introduction on MODFLOW, presented at *Technical Meeting on Geotechnical Computer Programs for Common Applications*, Geotechnical Division, sponsored by Hong Kong Institutes of Engineers, 31 March, and rerun on August 25.
2. 2001, Jiao, JJ, Invited, Confined Groundwater Zone and Slope Instability in Hillsides of Weathered Igneous Rock in Hong Kong, presented at *Technical Meeting, Geotechnical Division, Hong Kong Institutes of Engineers*, 10 January.
1. 1999, Jiao JJ, Invited, Hydrogeological studies of the slope failure at Tuen Mun Highway Chainage 550, Hong Kong, *the 4th National Symposium on Engineering Geology and Environment*, Harbin, China

Contributed Conference Presentations (oral unless otherwise noted as poster)

49. 2019, Xiaolang Zhang, JJ Jiao, Effects of salty water infiltration on nested groundwater flow system, AGU Fall Meeting, December 9-13, San Francisco, CA, USA.
48. 2019, Rong Mao, Xin Luo, JJ Jiao, Quantify time-variant travel time distribution by multi-fidelity model in hillslope under nonstationary hydrologic condition, AGU Fall Meeting, December 9-13, San Francisco, CA, USA.
47. 2019, Wenzhao Liang, JJ Jiao, Yi Liu, and Xin Luo, Isotope evidence for seasonal dynamics of dissolved nitrogen in Tolo harbour, Hong Kong, AGU Fall Meeting, December 9-13, San Francisco, CA, USA.
46. 2018, Jiao JJ, Xin Luo, and Wenzhao Liang, Submarine groundwater discharge derived nutrients and red tide outbreaks in Tolo Harbor, Hong Kong, 25th Salt water intrusion meeting, June 17-22, Gdansk, Poland.
45. 2015, Jiao JJ, Groundwater in Badain Jaran Desert in China, *Third China-Africa Water Forum*, July 17-19, University of the Western Cape, Cape Town, South Africa.
44. 2007, Haipeng Guo and Jiao JJ, Numerical Study of the Airflow in the Unsaturated Zone Induced by Sea Tides, *2007 Fall Meeting* in San Francisco, California (this poster won Outstanding Student Paper Award).
43. 2007, Jiao JJ & Guo HP, Airflow induced by pumping and its impact on data analysis, *12th International Symposium on Water-Rock Interaction (WRI-12)*, July 31 to August 5, Kunming, China
42. 2007, Chen KP and JJ Jiao, Hydrochemical evolution of groundwater in Shenzhen after land reclamation: major ion chemistry of coastal groundwater, 2007 Ground Water Summit,

- Albuquerque, New Mexico, April 29-May 3. (poster) (won the best poster prize of the summit: NGWREF (National Ground Water Research and Educational Foundation) Farvolden Award)
41. 2006, Jiao JJ and KC Tse, Submarine Groundwater Discharge and its Influence on Coastal environment in Tolo Harbor, Hong Kong, *Second International Conference on Estuaries & Coasts*, 28-30 November, Guangzhou, China.
 40. 2006, Jiao JJ and KP Chen, Physical and chemical processes in the subsurface system of reclaimed coastal land, *Congress of 9th Australasian Environmental Isotope Conference and 2nd Australasian Hydrogeology Research Conference*, 13th –15th December, Adelaide, South Australia, Australia
 39. 2006, Chen KP and Jiao JJ, Hydrochemical evolution of groundwater in Shenzhen after land reclamation: major ion chemistry of coastal groundwater, *Congress of 9th Australasian Environmental Isotope Conference and 2nd Australasian Hydrogeology Research Conference*, 13th –15th December, Adelaide, South Australia, Australia (poster)
 38. Jiao JJ and KC Tse, Submarine Groundwater Discharge and its Influence on Coastal environment in Tolo Harbor, Hong Kong, *Second International Conference on Estuaries & Coasts*, 2006, Guangzhou, China, (abstract published)
 37. Jiao JJ and GP Ding, Impact of the underground mass transit railway on groundwater system in a coastal area in Hong Kong, *The 34th Congress of International Association of Hydrogeologists*, October 9-13, 2006, Beijing, China (abstract published)
 36. Leung CM and JJ Jiao, Impact of urbanization on the heavy metal and trace element concentrations in groundwater in a coastal area in Hong Kong, *The 34th Congress of International Association of Hydrogeologists*, October 9-13, 2006, Beijing, China (abstract published) (poster)
 35. Chen KP and JJ Jiao, Hydro-chemical modeling of heavy metal transport induced by land reclamation, *The 34th Congress of International Association of Hydrogeologists*, October 9-13, 2006, Beijing, China (abstract published)
 34. Huang JM, RQ Huang, JJ Jiao, and CP Chen, Trace Metal Partition in Mud in Coastal Reclamation Areas in Shenzhen ,China, *The 34th Congress of International Association of Hydrogeologists*, October 9-13, 2006, Beijing, China (abstract published) (poster)
 33. Guo HP and JJ Jiao, Impact of Land Reclamation on Ground Water Flow and Seawater-terrestrial Groundwater Interface in Coastal Areas, *The 34th Congress of International Association of Hydrogeologists*, October 9-13, 2006, Beijing, China (abstract published) (poster)
 32. Tse KC and JJ Jiao, Temporal-spatial dynamics of groundwater quality around Tolo Harbour, Hong Kong and its ecological consequences, *The 34th Congress of International Association of Hydrogeologists*, October 9-13, 2006, Beijing, China (abstract published) (poster)
 31. Leung CM and JJ Jiao, Identification of leakage from mains distribution systems in Hong Kong: Further insights from groundwater strontium isotope ($^{87}\text{Sr}/^{86}\text{Sr}$) ratios, *AGU Western Pacific Geophysics Meeting*, Beijing, China, 2006 (abstract published)
 30. Chen KP and JJ Jiao, Hydrogeochemical modeling of heavy metal transport in coastal area reclaimed from the sea, *AGU Western Pacific Geophysics Meeting*, Beijing, China, 2006 (abstract published)

29. Huang JM, RQ Huang, JJ Jiao, and CP Chen, Partition and mobility of trace metal in mud in coastal reclamation areas in Shenzhen ,China, *AGU Western Pacific Geophysics Meeting*, Beijing, China, 2006 (abstract published) (poster)
28. Guo HP and JJ Jiao, Rain-induced subsurface airflow and Lisse effect, *AGU Western Pacific Geophysics Meeting*, Beijing, China, 2006 (abstract published) (poster)
27. Ding GP and JJ Jiao, Hypothetical study on the impact of deep foundations of buildings on ground water flow regime, *AGU Western Pacific Geophysics Meeting*, Beijing, China, 2006 (abstract published) (poster)
26. Tse KC and JJ Jiao, Submarine groundwater discharge in Tolo Harbour, *AGU Western Pacific Geophysics Meeting*, Beijing, China, 2006 (abstract published) (poster)
25. Jiao JJ, CM Leung and GP Ding, Change of groundwater system in a coastal area in Hong Kong over the last century, *AGU Western Pacific Geophysics Meeting*, Beijing, China, 2006 (abstract published)
24. Jiao JJ, Naturally occurred ammonium-rich groundwater in the Pearl River Delta and its possible impact on surface water environment and ecology, *presented in Conference on Recent Advances in Geological Research of Conference on Recent Advances in Geological Research of Hong Kong and The Pearl River Mouth Region, Dec 8-10, 2006, Hong Kong, China*
23. Guo HP and JJ Jiao, Sensitivities of the Lisse Effect to Soil Properties, Rain Intensities and the Water-table Depth, presented in *Conference on Recent Advances in Geological Research of Conference on Recent Advances in Geological Research of Hong Kong and The Pearl River Mouth Region, Dec 8-10, 2006, Hong Kong, China*
22. Tse KC, JJ Jiao, Leung JKC, YX Zhang, Preliminary study of submarine groundwater discharge in Tolo Harbour, Hong Kong, presented in *Conference on Recent Advances in Geological Research of Conference on Recent Advances in Geological Research of Hong Kong and The Pearl River Mouth Region, Dec 8-10, 2006, Hong Kong, China*
21. Ding GP and JJ Jiao, Hypothetical study on the impact of deep foundations of buildings on ground water flow regime, presented in *Conference on Recent Advances in Geological Research of Conference on Recent Advances in Geological Research of Hong Kong and The Pearl River Mouth Region, Dec 8-10, 2006, Hong Kong, China*
20. Leung CM and JJ Jiao, A preliminary study on the aqueous rare earth element (REE) distribution in groundwater in a highly-urbanized coastal area in Hong Kong, presented in *Conference on Recent Advances in Geological Research of Conference on Recent Advances in Geological Research of Hong Kong and The Pearl River Mouth Region, Dec 8-10, 2006, Hong Kong, China*
19. Chen KP, JJ Jiao, J Huang and R Huang, Preliminary study on the behavior of heavy metals in mud and groundwater in a coastal reclamation area in Shenzhen, China, presented in *Conference on Recent Advances in Geological Research of Conference on Recent Advances in Geological Research of Hong Kong and The Pearl River Mouth Region, Dec 8-10, 2006, Hong Kong, China*
18. Cheng J, McIntosh J, Xie X & Jiao JJ: Hydrogeochemistry of Formation Water in the Northern Songliao Basin, China, *Goldschmidt 2005 (Voyage of Discovery, 50th Anniversary of the Geochemical Society)*, May 20-25, 2005, Moscow, Idaho USA

17. Cheng J., McIntosh J.C., Xie X. and Jiao J.J., Hydrochemistry of formation water with implication to diagenetic reactions in Sanzhao depression and Qijia-Gulong depression of Songliao basin, China, *Seventh International Symposium on the Geochemistry of the Earth's Surface*, GES-7, Aix-en-Provence, August 23-27, 2005, France (abstract published).
16. Cheng, JM, JJ Jiao, and XN Xie, Hydrogeochemistry of formation water with implication to abnormal pressures in the Northern Songliao basin, China, *American Geophysical Union, 2004, Annual Meeting, San Francisco, California*. (abstract published)
15. Jiao, JJ, Urban hydrogeology, *Workshop Strategies for Hydrogeologic Studies in the 21st Century*, jointly organized by Natural Sciences Foundation of China and China Geological Survey, Nov 17-20, 2002 (extended abstract published)
14. Jiao JJ and S Nandy, Modification of Groundwater Regimes in Coastal Areas due to Extensive Urbanization, *AGU Western Pacific Geophysics Meeting* in New Zealand, 2002 (abstract published)
13. Jiao JJ and S Nandy, Impact of Structure Foundations on Groundwater Regimes in Extensively Urbanized Coastal Areas, *Symposium on important geotechnical and environment issues related to western development in China*, Chengdu, China, October 10-14, 2001.
12. Jiao, JJ, Confined Groundwater Zone and Slope Instability in Hillsides of Weathered Igneous Rock in Hong Kong, presented at *Technical Meeting, Geotechnical Division, Hong Kong Institutes of Engineers*, 10 January 2001.
11. Jiao, JJ, Hydrogeology of deep-seated landslides in slopes of residual soils in Hong Kong, presented at *AGU Western Pacific Geophysics Meeting* in Tokyo, 2000. (abstract published)
10. Nandy, S. and Jiao, JJ, Preliminary study on the impact of reclamation on groundwater flow, presented at *AGU Western Pacific Geophysics Meeting* in Tokyo, 2000. (abstract published)
9. Li, H. and Jiao, JJ, Impact of leakage and storage of semi-confining layer on tide-induced groundwater level fluctuation in a multi-layer coastal aquifer system, presented at *AGU Western Pacific Geophysics Meeting* in Tokyo, 2000. (abstract published)
8. Zhang, J., Z. Wu and Jiao, JJ, Seepage problems and treatment measures of the earth dyke along the Yangtze River, China, presented at *AGU Western Pacific Geophysics Meeting* in Tokyo, 2000. (abstract published)
7. Jiao, JJ, Anomalous Piezometric Response and Slope Failure Caused by Pressure Waves in Unsaturated Groundwater Flow, *Symposium on Behaviors of Unsaturated Soils and Slopes in Hong Kong*, 19 May, 1999
6. Jiao, JJ, C. Zheng, Using genetic algorithms for aquifer parameter estimation: a comparison with gradient methods, presented at *AGU Western Pacific Geophysics Meeting* in Taiwan, 1998. (abstract published)
5. Jiao, JJ, C. Zheng, Investigation of underpressurization caused by erosional unloading at the Guymon site, Oklahoma, presented at *Geological Society of America Annual Meeting*, 1995 at New Orleans. (abstract published)
4. Jiao, JJ, C. Zheng and R. Hennet, Study of the feasibility of liquid waste disposal in underpressured geological formations, presented at *American Geophysical Union Spring Meeting*, 1995 at Baltimore, Washington DC. (abstract published)

3. Jiao, JJ and C. Zheng, Investigation of different characteristics of transmissivity and storativity, presented at *Geological Society of America, 1995, Southeastern Section Annual Meeting*, at Knoxville, Tennessee. (abstract published)
2. Zheng C., and JJ Jiao, Theory and application of SuperMT, a three-dimensional contaminant transport simulator for supercomputers, *Geological Society of America, 1995, Southeastern Section Annual Meeting*, at Knoxville, Tennessee. (abstract published)
1. Zheng C., JJ Jiao and C. J. Neville, Numerical simulation of a large-scale tracer test in a strongly heterogeneous aquifer, *American Geophysical Union, 1994, Annual Meeting*, San Francisco, California. (abstract published)

Editorships

- Associate Editor of *Journal of Hydro-environment Research* (Elsevier) (2018-2022)
- Editor of *Hydrogeology Journal*, Official journal of the International Association of Hydrogeologists (April 2008-July 2015)
- Associate Editor of *Hydrogeology Journal*, Official journal of the International Association of Hydrogeologists (2004-March 2008)
- Associate Editor of *Ground Water*, Official journal of the National Ground Water Association of American (2002-2008)
- Editor of Special Sections of *Ground Water* (Vol 42, No 4 & 5, 2004) on “Ground Water Research in China”
- Associate Editor of *Hydrogeology and Engineering Geology* (In Chinese) sponsored by Ministry of Land & Resources of China and China Institute for Geo-Environmental Monitoring (2002-present)

Journal Reviewer for other journals

Nature Geosciences; Nature Food; Journal of Geophysical Research – Oceans; Geophysical Research Letter; Science of the Total Environment; Water International; Water Resources Research; Advances in Water Resources; Journal of American Water Resources Association; Journal of Hydrology; Engineering Geology; ASCE Journal of Hydrologic Engineering; Geotechnical and Geological Engineering; Canadian Journal of Physics; Water International; Journal of Systems Science and Systems Engineering; Integrated Environmental Assessment and Management; Transport in Porous Media; Environmental Toxicology and Chemistry; Environmental Geology; Hydrological Processes; Hong Kong Engineer Transactions,

Grant Proposal Reviewer for major research funding bodies

- 2021- present: Panel member of Physical Sciences Panel (Joint Research Schemes) of the Research Grants Council, Hong Kong Government

- Member of the 13th Panel (Earth Sciences Group 1) for Evaluation of Proposals both for Key Program Projects and General Program Projects of National Nature Science Foundation of China (NNSFC) from 2010 to 2012.
- Earth Sciences Panel Member for Final Evaluation of Proposals for Key Program Projects of National Nature Science Foundation of China (NNSFC), Aug. 7-8, 2006, Beijing.
- Earth Sciences Panel Member for Final Evaluation of Proposals for General Program Projects of National Nature Science Foundation of China (NNSFC), Aug. 9-12, 2006, Beijing.
- Research Grant Council (RGC), Hong Kong Government
- National Science Foundation (NSF), USA
- Australian Research Council (ARC)
- Natural Sciences and Engineering Research Council (NSERC) of Canada
- The Israel Science Foundation (ISF)
- Vienna Science and Technology Fund
- Arab Science & Technology Foundation (ASTF)
- Leibniz Competition, Germany

Conference Organizing Committee and Panel Chair

24. 2022, Member of Scientific Committee, the 49th IAH Congress, Wuhan, China, (September 19-22)
23. 2019, Member of Scientific Committee, the 6th APCAMM (Asia-Pacific Coastal Aquifer Management Meeting), Chennai, India, (December 11-13)
22. 2018, Member of Scientific Committee, the 45th International Association of Hydrogeologists Congress (IAH), Daejeon, Korea (September 9-14)
21. 2018, Member of Scientific Committee, The 25th Salt Water Intrusion Conference, Gdańsk, Poland (June 17 to 22)
20. 2017, Member of Scientific Advisory Board, *China-Africa Water Forum Series No 5, Zimbabwe* (July 31- August 3).
19. 2017, Member of International Scientific Committee, APCAMM (Asia-Pacific Coastal Aquifer Management Meeting), Da Nang, Vietnam.
18. 2016, Member of International Advisory Committee, SWIM-APCAMM (Asia-Pacific Coastal Aquifer Management Meeting), Cairns, Australia.
17. 2013, Member of Organizing Committee, APCAMM, Beijing, China
16. 2011, Member of Organizing Committee, APCAMM, Jeju, Korea
15. 2009, Member of Organizing Committee, Asia-Pacific Coastal Aquifer Management Meeting (APCAMM), Bangkok, Thailand

14. 2009, Member of Scientific Advisory Committee, ModelCare2009, The 7th International Conference on Calibration and Reliability in Groundwater Modeling, Wuhan, China, September 20-23, 2009
13. 2008, Member of Organizing Committee, 8th National Engineering Geology Conference, Shanghai, October 2008
12. 2007, session chair of *12th International Symposium on Water-Rock Interaction (WRI-12)*, July 31 to August 5, Kunming, China
11. 2006, Member of Organizing Committee, *International Symposium On Sustainable And Safe Water Supplies*, January 15-16, 2007, Hong Kong
10. 2006, Member of Scientific Committee, The 34th Congress of International Association of Hydrogeologists, October 9-13, 2006, Beijing, China.
9. 2005, Member and session chair of Organizing Committee, *International Symposium of Frontiers of earth sciences: tectonic evolvement of China margin seas and continent margin geology and its response of environment evolvement*, June 20-25, Guangzhou, China
8. 2005, session chair of *International Workshop on Challenges and Opportunities in the Chinese Groundwater Sciences*, organized by Natural Sciences Foundation of China, June 16-17, Beijing
7. 2004, Member and session chair of Organizing Committee, *International Symposium on Frontiers of Earth Sciences: Earth, Environment, and Human Impacts*, IPACES 2004 Annual Meeting in June 14-17, Chengdu, China.
6. 2004, Member of Organizing Committee, *4th International Symposium on Environmental Hydraulics and 14th Congress of Asia and Pacific Division*, International Association of Hydraulic Engineering and Research, December 15 - 18, Hong Kong, China.
5. 2003, Member of Organizing Committee of *International Symposium on Environment Sustainability in West Development*, November 4-6, Xi'an, China
4. 2003, Member of Organizing Committee of *International Symposium on Water Resources and the Urban Environment*, November 9-10, Wuhan, P. R. China
3. 2001, Member of Organizing Committee of The 3rd Two Coasts-Three Regions & World Chinese Conference on Geological Sciences, Hong Kong, China, December, 2001.
2. 2000, Co-convener, special session on "Groundwater and Geotechnical Engineering", Western Pacific Geophysical Meeting, June 27 – 30, Tokyo, Japan
1. 2000, Member of Scientific Advisory Committee of International Symposium on Hydrogeology and the Environment, Oct. 17-20, Wuhan, China

Research Projects as PI

GRF, NSFC, and others

52. Coastal groundwater dynamics and bio-irrigation and their effects on carbon sequestration and cycling in mangrove-marsh system, General Research Fund (GRF), January 2024 – December 2026. HK\$ \$877,079

- 51 The Poshan drainage tunnel system as an intensively instrumented hillslope critical zone observatory to explore groundwater dynamics and its engineering and ecological implications, Collaborative Research Fund, June 29 2023 – June 28 2024. HK\$ 2,785,200
50. Imprint of E. coli occurrence transport and discharge by radon-222 in the beach aquifer, General Research Fund (GRF), July 2022 – June 2025. HK\$ 880,000
49. The province, discharge and evolution of the offshore groundwater system, and its bio-geochemical implications in the Pearl River Estuary and the adjacent continental shelf, National Science Foundation of China (NSFC) Key Programme, January 2022 – December 2026. RMB\$ 2,910,000
48. Managed Aquifer Recharge In Carbonate Aquifer of Yuen Long South - Stage I: Groundwater Flow Modelling, Black & Veatch Hong Kong Limited (2020-2021). HK\$ 800,000,
47. Impact Study of the Cavern Sewage Treatment System on Regional Groundwater Flow, Drainage Services Department, HKSAR (2018-2019). HK\$ 1,260,000
46. Occurrence, transport, and transformation of methane in the marine sediments in the Pearl River Estuary, General Research Fund (GRF), January 2022 – December 2024. HK\$ 666,015
45. Microbial-mediated nutrient cycle in the beach aquifer and benthic sediments and its effect on the algal blooms in Tolo Harbour, General Research Fund (GRF), Jan 2020 – Dec 2023. HK\$ 369,179 (Co-Investigator: X Luo, JD Gu, Y Liu and W. Moore)
44. Lacustrine groundwater discharge-derived nutrients to Taihu and their environmental and ecological implications, HKU-ZIRI Seed Funding, July 2018 – December 2019. RMB 3,000,000.
43. The investigation of carbon cycle and greenhouse gas (CO₂, CH₄) emission from aquifer-aquitard system in Pearl River Delta, National Science Foundation of China (NSFC), January 2019 – December 2022. RMB\$ 610,000
42. Response of groundwater system in the Badain Jaran Desert to future climate change, General Research Fund (GRF), Jan 2018 – Dec 2021. HK\$ 522,898 (Co-Investigator: XX Kuang, XS Wang, and C. Voss)
41. Groundwater discharge and lake evolution in the Badain Jaran Desert revealed by radium quartet and radon-222, National Science Foundation of China (NSFC), January 2016 – December 2019. RMB\$ 880,000
40. Effects of climate change on groundwater system of the Yangtze River source region, General Research Fund (GRF), September 2015 – August 2018. HK\$ 501,255 (Co-Investigator: ZH Liu, XX Kuang, JM Lemieux, and SH Liang)
39. Submarine Groundwater Discharge in South China Sea and its Implication on Nutrient Flux, National Science Foundation of China (NSFC), January 2014 – December 2017. RMB\$ 930,000
38. Isotopic and Geomicrobiologic Studies of Ammonium-Rich Aquitards in the Pearl River Delta, General Research Fund (GRF), January 2013 – December 2015. HK\$ 1,150,700 + 20,000 (Co-Investigator: JD Gu, R Aravena and JA Cherry)
37. Dynamics of flow, nutrients, radium, and radon in freshwater-saltwater mixing zones in coastal aquifers and its implications on estimation of submarine groundwater discharge,

- General Research Fund (GRF), January 2012 – December 2014. HK\$ 710,700 + 50,000 (Co-Investigator: HL Li, W Moore and J Cherry)
36. Hydrogeological and Geochemical Characterization of Clay-Rich Aquitards in the Pearl River Delta, General Research Fund (GRF), January 2011 – December 2013. HK\$ 755,700 + 50,000 (Co-Investigator: Dr XS Wang, Professor J Cherry, Dr Y Zong)
 35. Generation and Migration of High-Salinity Groundwater in the Pearl River Delta, General Research Fund, Grants Council of Hong Kong, January 2010 - December 2012. HK\$ 620,000 + 50,000 (Co-investigators: JA Cherry and YQ Zong)
 34. Subsurface airflow induced by pumping tests, Research Grants Council of Hong Kong, January 2009 - December 2011. HK\$ 343,700 + 50,000 (Co-investigators: L Wan and KN Zhang)
 33. Origin and evolution of abnormally high ammonium groundwater in the Pearl River Delta and its environmental impact, Research Grants Council of Hong Kong, January 2008 - December 2010. HK\$ 545,000 + 50,000 (Co-investigators: JY Chen, FL Wang and JA Cherry)
 32. Submarine Groundwater Discharge in Tolo Harbour and its Possible Ecological Influence, Research Grants Council of Hong Kong, December 2006 - November 2009. HK\$ 300,000 + 50,000 (Co-investigators: John Leung, Ji-Dong Gu, and Willard S. Moore)
 31. Subsurface air flow induced by sea tides, Research Grants Council of Hong Kong, December 2005 - November 2008. HK\$ 428,000 + 50,000 (Co-investigators: Jinzhong Yang, Hailong Li and Edwin P. Weeks)
 30. Impact of Deep Foundations in Extensively Urbanized Areas on Coastal Groundwater Regimes, Research Grants Council of Hong Kong, December 2003 - November 2006. HK\$ 776,000 + 50,000 (Co-investigators: Dongxiao Zhang and Yanxin Wang)
 29. Modification of Regional Groundwater Regimes by Large-Scale Land Reclamation, Research Grants Council of Hong Kong, December 2002 - November 2005. HK\$ 465,000 (Co-investigators: Chongxi Chen and Chunmiao Zheng)
 28. Origin and Evolution Of Abnormal Fluid Pressures In The Shiwu Area In Northeastern China, Research Grants Council of Hong Kong, September 1999 - August 2002. HK\$ 465,000 (co-investigators: Z. Tang and C. Zheng)

Other external peer-review research grants

27. Impact of land reclamation on groundwater flow regimes and its possible engineering and environmental consequences, the "Two Bases" Project of National Natural Science Foundation of China, March, 2004 - February, 2007, RMB 300,000, (Co-investigator: Professor Runqiu Huang, Environment and Civil Engineering College, Chengdu University of Technology)

Internal peer-review research grants

26. Groundwater chemical responses in a hillslope to heavy rainfall, Seed Fund for Basic Research, HKU, April 1, 2018 – March 31, 2020, HK\$ 111,050

25. Investigation of groundwater residence time and reactive transport in the coastal aquifer, Ting Kok, Tolo Harbour: Field monitoring, chemical analysis and numerical modelling, Seed Fund for Basic Research, HKU, May 1, 2017 – April 30, 2019, HK\$ 66,490
24. Investigation of nutrient retention in a groundwater-fed headwater stream by stable and radiogenic isotopes, The University of Hong Kong, Jan 1, 2016 – Dec 31, 2017 HK\$ 57,480.
23. Submarine Groundwater Discharge Estimates in Tolo Harbour, Hong Kong by Radon and Radium Isotopes, Seed Funding within the Faculty of Science, HKU, April, 2005 - March, 2006, HK\$ 90,000, (PI: Dr J Leung, Department of Physics, HKU).
22. Pore Pressure Response to Rainfall in Slopes of Weathered Igneous Rock with a Confined Groundwater Zone, Committee on Research and Conference Grants, The University of Hong Kong, November 1, 2003 - October 31, 2005 HK\$ 43,500 (Co-investigator: Xu-Sheng Wang).
21. Subsurface Air Flow Induced by Tidal Fluctuation, Committee on Research and Conference Grants, The University of Hong Kong, November 1, 2002 - October 31, 2004, HK\$ 60,000.
20. Groundwater Chemical Study in Mid-Levels Area, Hong Kong, Seed Fund in Faculty of Science, The University of Hong Kong, November 2001-October 2002, HK\$ 80,000 (co-investigators: J Malpas and WT Chan)
19. Tide-Induced Groundwater Level Fluctuation in Multilayered Coastal Aquifer Systems in Hong Kong, Committee on Research and Conference Grants, The University of Hong Kong, November 2001- October 2003, HK\$ 62,000
18. Preliminary study on confined groundwater zone in slopes of weathered igneous rock and its impact on slope stability, Dr. Stephen S. F. Hui Trust Fund, University of Hong Kong, March 2001 - February 2002, HK\$ 103,000
17. Preliminary Study on Impact of Land Reclamation on Regional Groundwater Regime, Committee on Research and Conference Grants, The University of Hong Kong, November 2000- October 2002, HK\$ 70,000
16. Delayed Slope Failures Caused By Hydrogeological Regimes, Committee on Research and Conference Grants, The University of Hong Kong, July 1999 - June 2001. HK\$ 50,500 (co-investigator: A. Malone)
15. Preliminary Study on the Dynamic Interaction between Seawater and Groundwater in Coastal Areas in Hong Kong, Dr. Stephen S. F. Hui Trust Fund, University of Hong Kong, Oct. 1998 - Sept. 1999. HK\$ 110,000 (co-investigator: H. Cheung)
14. Mechanisms of Underpressured Reservoir and Implications for Waste Disposal, Committee on Research and Conference Grants, The University of Hong Kong (July 1998 - June 2000). HK\$ 90,000
13. Aquifer parameter identification by genetic algorithms, Committee on Research and Conference Grants, The University of Hong Kong (July 1997 - June 1998). HK\$ 98,000

Research Projects as Co-PI

RGC & NSFC grants

14. Study of the Regional Earth System for Sustainable Development under Climate Change in the Greater Bay Area, Areas of Excellence (AoE) Scheme, Research Grants Council of Hong Kong, January 2024-December 2028, HK\$ 73,891,000 (PI: Prof Jianping Gan, HKUST).
13. Digital Twin-empowered Landslide Emergency Risk Management, Theme-based Research Scheme (TRS), Research Grants Council of Hong Kong, January 2024-December 2028, HK\$ 62,071,000 (PI: Prof Limin Zhang, HKUST).
12. Collaboration Agreement for Groundwater flow in the Yarlung Zangbo River and its evolution (NSFC major project), January 2018-December 2021, RMB 2,000,000 (my share: 500,000) (PI: Dr Xingxing Kuang, SUSTech).
11. Coping with landslide risks in Hong Kong under extreme storms: Storm scenarios, cascading landslide hazards and multi-hazard risk assessment, the Collaborative Research Fund (CRF), Research Grants Council of Hong Kong, June 30 2016-June 29 2019, HK\$ 6,236,682 (my share: 850,000) (PI: Prof Limin Zhang, HKUST).
10. Biological Methanogenesis of Alkanes: Thermodynamics and Microbial Ecology, NSFC/RGC Joint Research Scheme, Aug 2008-June 2011, HK\$ 883,380 (PI: Dr J Gu, School of Biological Sciences)
9. Stable Isotope Laboratory, UGC One-off Special Equipment Grant Scheme, Aug 2008-June 2011, HK\$ 4,500,000 (PI: Min Sun, Earth Sciences Department)
8. Hong Kong Radon Map, Hong Kong SAR, Research Grants Council of Hong Kong, January 2006 – December 2009. HK\$ 500,000 (PI: John Leung, Physics Department)
7. Drowned and partially drowned relic landslide deposits on the northwestern coast of Lantau Island, Hong Kong SAR, Research Grants Council of Hong Kong, September 1999 - August 2002. HK\$ 283,000 (PI: WWS Yim, Earth Sciences Department)
6. Integrated physical and ecological management of rivers - with particular reference to the East River, NSFC/RGC Joint Research Scheme, Feb 2004 – July 2007. HK\$ 572,800 (PI: JHW Lee, Dept of Civil Engineering)

Other external peer-review research grants

5. Studies on seawater intrusion and countermeasures in Shenzhen, supported by Land and Resources Department, Shenzhen Government, July 2007 to June 2008, RMB 12,000,000 (Key member of the research team headed by Shenkan Geotechnical Company, Shenzhen).
4. Sustainable water: one of the 21 Strategic Research Themes identified by University Research Council, Hong Kong Government, HK\$ 500,000, University Research Council, Hong Kong, June, 2005 – Dec, 2006, (PI: Professor HHP Fang, Civil Department, HKU)
3. Integrated Physical and Ecological Management of Rivers – with Particular Reference to the East River, (NSFC) / (RGC) Joint Research Scheme, HKU747/03, (Dec 2003 – Nov. 2006). HK\$ 572,800 (PI: Professor JHW Lee, Civil Engineering Department)
2. Modification of Water Environment in the Pearl River Delta Region due to Economic Development. (PI: Professor R Liu, Guangzhou Institute of Geography), Scientific Research Foundation of Guangdong Province of China, June 2001 – May 2003. RMB\$ 300,000.
1. HKU development fund for shorted listed AOE project, Area of Excellence in Water Environment Engineering (PI: Professor Joseph Hun-Wei Lee, Civil Engineering Department), co-investigator, and key investigator of the Problem Area of Surface

Water-Groundwater Interaction in East River Catchment, May 2002 – April 2003, HK\$4 million.

Professional Affiliations

- American Society of Civil Engineers (Fellow)
- Geological Society of America (Fellow)
- Geological Society of London (Fellow)
- The Hong Kong Institution of Engineers (Member, Chartered Engineer)
- National Ground Water Association (USA) (Member)
- American Society of Civil Engineers, Hong Kong Chapter (Member)
- International Association of Hydrogeologists (Member)
- American Geophysical Union (Member)
- Hong Kong Geological Society (Member)

Professional Contributions to Industry and Governments

- 2021- present: Panel member for the Review of the Centre for Water Technology and Policy, HKU
- 2020- present: Member of Expert Advisory Committee of Water Resources Assessment, China Geological Survey
- 2019- present: Special advisor for Center for Hydrogeology and Environmental Geology Survey, China Geological Survey
- 2018- present: Member of the Editorial Board to compile the National Guide of Geohazard Prevention coordinated by Association of Geological Hazard Prevention commissioned by the Ministry of Natural Resources of China.
- 2013-2019, Expert panel member for National Groundwater Resource Assessment in Singapore, Public Utilities Board, Singapore
- 2011 Expert for Water Resources Investigation in Mountainous Regions of Taiwan funded by Taiwan Central Geological Survey.
- 2009-2013, Studies on seawater intrusion and countermeasures in Shenzhen, funded by the Land and Resources Department, Shenzhen Government, China
- 2008, Expert advisor on coastal land reclamation, Water Resources Directorate, Bahrain
- 2007, Member of the international advisors on Landslide Research Centre in the University of Seoul Korea
- 2007, Field study on Permeability profile at Pak Kong landslide site (coordinated by Maunsell Geotechnical Services Ltd)
- 2005, Numerical studies on impact of soil nailing works on subsurface flow in slopes, Agreement No. Ce 5/2004(Ge) LPM Project – Phase 5, Package A Special Study
- 2005, Review on “Review of Landslides at cut slope 8SW-C/CR175 at Pak Kong Treatment Works, Near O Long Village Sai Kung, Landslip Special Report, GEO, HK
- 2005, Review on “Document on Engineering Geological Practice in Hong Kong, GEO, HK”
- 2001, *Infrastructure for Penny’s Bay Development – Site Investigation, Phase 1 – Guelph Permeability Test*, CED Contract No. CV/2000/07

- Hydrogeological Advisor providing expert services to Halcrow China Limited, Maunsell Consultants Asia Ltd, Maunsell Geotechnical Services Ltd, MTRC, Geotechnical Engineering Office, HKSAR,

Courses Taught

Hydrogeology (undergraduate), Engineering Geology (undergraduate), Soil and Rock Mechanics (undergraduate), Advanced Hydrogeology (MSc students).

Postgraduate Students Supervised

PhD students:

Nandy Subhas (6/1998-1/2002), Hailong Li (10/1999-1/2003), Guoping Ding (11/2001-3/2006), Kouping Chen (9/2003-10/2007), Haipeng Guo (9/2004- 8/2008), Wang Ya (6/2007- 2011), Xingxing Kuang (8/2008-2012), Kun Liu (8/2009- 2014), Xin Luo (2011-2015), Yi Liu (2013-2017), Rong Mao (2016-2021), Wenzhao Liang (2017-2021), Xiaolang Zhang (2016-2021), Zhiyong Huang (2017-2021), Kaihao Cheng (2018-2021), Wensi Guo (2018-), Meiqing Lu (2018-), Xiaoyan Shi (2018-), Shengchao Yu (2019-), Wenli Hu (2020-), Chong Sheng (2020-), Guodong Cheng (2021-), Tianwei Wang (2021-), Tao Yang (2023-)

MPhil students

Chiman Leung (9/2001-1/2004), Kiu Chung Tse (9/2004- 9/2006), Chun Ming Lee (1/2010-2012), Hiu Tung Kwong (2013-2015), Carol Pau (2015-2018)