Prof. Dr. Cheng LIU



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POSITION/AFFILIATION:

Professor & Senior Engineer, China Institute of Water Resources and Hydropower Research (IWHR), Beijing, China.

Division Chief, International Research and Training Center on Erosion and Sedimentation (IRTCES) under the auspices of UNESCO & Ministry of Water Resources of China, Beijing, China

RESEARCH INTERESTS:

Hydraulics and river dynamics, sediment dynamics, sediment and river basin management, environmental hydraulics, eco-sedimentation, and soil and water conservation.

PROFESSIONAL SOCIETIES

Executive Secretary General and Treasurer, World Association for Sedimentation and Erosion Research (WASER) (2016 - present);

Member of the Advisory Group, International Sediment Initiative – IHP - UNESCO-IHP (ISI) (2005 - present); Associate Editor (2013 - present) and member of Review Board (2003 - 2013), *International Journal of Sediment Research*;

Member of Executive Committee, International Association for Hydro-Environment Engineering and Research China (Mainland) Chapter (2009 - present);

Member of Review Board, *Advances in Science and Technology of Water Resources* (2014 - present); Member of International Association of Hydraulic Research (IAHR) (2001 - present).

EDUCATION BACKGROUND:

(1) Post doctoral fellow majored in Hydraulics and River Dynamics in IWHR under supervisor Prof. Zhao-Yin Wang from 2001 to 2003.

(2) Postdoctoral research and Research Assistant majored in Environmental Hydraulics under supervisor Prof.

Joseph H.W. Lee in the University of Hong Kong from 2000 to 2001.

(3) Obtained Ph.D. majored in Water Pollution Controlling under supervisor Prof. Heping Wei in Tongji University, Shanghai, China in 1999.

(4) Obtained Master of Engineering majored in Hydraulics and River Dynamics under supervisor Prof. Chunsheng Ma in Hefei University of Technology, Hefei, China in 1991.

(5) Obtained Bachelor of Engineering majored in Hydraulics and Water conservancy in Hefei University of Technology, Hefei, China in 1986.

WORK EXPERIENCE

2003 – : Deputy Division Chief, and Professor & Senior Engineer, International Research and Training Center on Erosion and Sedimentation (IRTCES) / China Institute of Water Resources and Hydropower Research (IWHR).

1991 – 2002: Associate Professor, Department of Environmental Engineering, Anhui Jianzhu University, Hefei, China.

1986 - 1988: Engineer at the Construction Bureau of Guoyang County, Anhui Province, China

RESEARCH PROJECTS

- Effects of Typical Management Measures and Modes on Changes in Soil and Water Loses (2017 2021), Sub project of the National Key Research and Development Program of China (2017YFC0505401-3). Principle Investigator.
- Study on Temporal and Spatial Distribution and Changes of Global Soil Erosion and River Sedimentation (2021). IWHR research project (SC0145B012021). Participation.
- Assessment of Key Technologies for Major National Ecological Projects in Recent Years (2016-2020), Sub project of the National Key Research and Development Program of China (2016YFC0503704). Participation.
- Study on Water Volume for Transporting Sediment in Different Sections of the Yellow River (2017-2020). IWHR research project (SC0145B172017). Participation.
- Study on Mechanism and Prediction Modes of Alluvial River Bank Collapse Downstream of Large Hydraulic Projects. Research project of National Natural Science Foundation of China (NSFC) (2012-2015). Participation.
- Study on Changes in Runoff and Sediment Loads of Rivers in China and Response Strategies (2012-2015). IWHR research project (Shaji-1230). Participation.
- Collaborative Study on Changes in Runoff and Sediment loads of Global Rivers and Integrated River Sediment Management (2014-2017), the International Science & Technology Cooperation Program of China (2014DFG72010). Principle Investigator.
- Database Construction of Global Information System on River Sedimentation, project of the Ministry of Finance, P.R. China (2006-2009). Principle Investigator (responsible for planning, programming, coordination and implementation).
- Key Techniques of Integrate Measure to Release Sediment Induced Disasters for the Huang-Huai-Hai Plain, project of Ministry of Science and Technology, P.R. China (2006-2008) (Participate in planning, programming and implementation).
- Utilization of Sediment Resource in the Lower Yellow River, UNESCO Project (2010) (responsible for planning, programming, coordination and implementation).
- Variation in Runoff and Sediment Load in the Pearl River Basin and its Cause, UNESCO Project (2008) (responsible for planning, programming, coordination and implementation).
- Integrated Physical and Ecological Management of the East River, UNESCO Project (2006-2007)

(responsible for planning, programming, coordination and implementation).

- Sediment Management and Wetland Conservation at Yellow River Mouth, UNESCO IHP Project (2006) (Participate in planning, programming and implementation).
- UNESCO-ISI Information System Construction, UNESCO–IHP-ISI Project (2006) (responsible for planning, programming, coordination and implementation).
- Integrated Physical and Ecological Management of Rivers with Particular Reference to the East River, joint research project supported by Hong Kong Research Grant Council (RGC) and National Natural Science Foundation of China (NSFC) (2004-2006) (Participate in planning, programming and implementation).
- Study on Sediment Oxygen Demand and its Effect Factors, NSFC project (2004-2006) (responsible for planning, programming, coordination and implementation).
- Case Study on the Yellow River Sedimentation, UNESCO IHP ISI project (2004-2005) (Participate in planning, programming and implementation).
- Study on Variation of Runoff and Sediment Yield of the Yangtze River upstream of the Three Gorges Reservoir and their Influence (2003-2005), National Key Technologies R & D Program of China (Participate in planning, programming and implementation).
- Study on the Mechanism of Turbidity Belt and Its Influence on Longshore Silt Drift and the Shrinkage of River Mouths, NSFC Project (2002-2004) (Participate in planning, programming and implementation).
- Sediment-Water-Pollutant Interactions in Estuarine and Coastal Waters with Particular Reference to Bohai Bay and Deep Bay, RGC and NSFC project (2001-2003) (Participate in planning, programming and implementation).
- Study on the Sediment Transportation in Sewer, Anhui Education Committee Project (2001-2004) (responsible for planning, programming, coordination and implementation).
- Mechanism of River Sedimentation Disasters and Control and Mitigation Strategies, Key Research Project of the NSFC and the Ministry of Water Resources of China (2000-2003) (Participate in planning, programming and implementation).
- Research projects related to environmental engineering in Shanghai (1996-2001): Hydrodynamic simulation of the Yangtze Estuary for assessment of the Third Shanghai Sewerage Project (1999-2001), Experimental Study on Optimizing the Diffuser Parameters of Bailonggang Outfall of the Second Shanghai Sewerage Project(1997-1999), Experimental Study on the SA and M2 Pumping Stations of the Second Shanghai Sewerage Project(1996-1998), Numerical Simulation on the Flow Pattern in the Forebay of Pumping Stations(1998-2001), Experimental Study on the Measures to Prevent Severe Sedimentation in the Invert-Siphon Through Huangpu River of Wumin Sewage System(1998), Modeling Study on the Sea Outfall of Jiaxing City, Zhejiang Province(1998); Study on the Water Pollution Controlling of Caohu Lake(1994); Optimization Study and Modeling Tests on the High-lift and Multi-stages Pumping Stations using Water from the Yellow River (1986-1991).

PUBLICATIONS

Journal Papers

- Liu, C., He, Y., Li, Z.W., Chen, J., & Li, Z.J. (2021). Key drivers of changes in the sediment loads of Chinese rivers discharging to the oceans, International Journal of Sediment Research, Vol. 36, No. 6: 747-755. DOI: /10.1016/j.ijsrc.2020.05.005.
- Liu, C., Liu, A., He, Y., & Chen, Y.H. (2021). Migration rate of river bends estimated by tree ring analysis for a meandering river in the source region of the Yellow River, International Journal of Sediment Research, Vol. 36, No. 5: 593-601.
- 3. Ning, Ke, Chen, Jia, Li, Zhongwu, Liu, Cheng, Nie, Xiaodong, Liu Yaojun, Wang, Lingxia, Hu, Xiaoqian.

Land use change induced by the implementation of ecological restoration Programs increases future terrestrial ecosystem carbon sequestration in red soil hilly region of China. Ecological Indicators, 133 (2021) 108409.

- 4. Wang Yushan, Xie Xin, Liu Cheng, Wang Yeyao, Li Min. Variation of net anthropogenic phosphorus inputs (NAPI) and riverine phosphorus fluxes in seven major river basins in China[J]. Science of the Total Environment,2020,742. DOI:/10.1016/j.scitotenv.2020.140514
- Chen Jia, Xiao Haibing, Li Zhongwu, Liu Cheng, Ning Ke, Tang Chongjun. How effective are soil and water conservation measures (SWCMs) in reducing soil and water losses in the red soil hilly region of China? A meta-analysis of field plot data[J]. Science of the Total Environment, 2020,735. DOI:/10.1016/j.scitotenv.2020.139517
- 6. Wang Zhaoyin and Liu Cheng, 2019. Two-thousand years of debates and practices of Yellow River training strategies. International Journal of Sediment Research, Vol. 34, No. 1, pp. 73–83.
- Liu, C., Walling, D.E., & He, Y. (2018). Review: The International Sediment Initiative case studies of sediment problems in river basins and their management. International Journal of Sediment Research, 33(2): 216-219. doi: /10.1016/j.ijsrc.2017.05.005
- 8. Shi, H. L., Hu C. H., Wang Y. G., Liu, C., & Li, H. M. (2017). Analyses of trends and causes for variations in runoff and sediment load of the yellow river. International Journal of Sediment Research, 32(2), 171-179
- LIU Cheng, HE Yun, WALLING Des E, WANG Jianjun. Changes in the sediment load of the Lancang-Mekong River over the period 1965-2003[J]. SCIENCE CHINA Technological Sciences, 2013, 56(4): 843-852.
- Liu, C., Sui, J. Y., He, Y., & Hirshfield, F. (2013). Changes in runoff and sediment load from major Chinese rivers to the Pacific Ocean over the period 1955–2010. International Journal of Sediment Research, 28(4), 486-495.
- 11. He, Yun and LIU, C., 2011. Optimizing the design of in situ sediment oxygen demand measurement chambers, International Journal of Sediment Research, Vol. 26, No. 2, pp. 222-229
- 12. Sun Dongpo, Geng Mingquan and Liu Cheng, 2011. Research on key technology for sediment management in large-scale reservoirs. in: Sediment Problems and Sediment Management in Asian River Basins (Walling eds), IAHS Publ. Vol(349), p.182-192.
- WANG ZHAOYIN, QI LIJIAN, YU GUOAN & LIU CHENG, 2011. New challenges in erosion and sedimentation research: a Chinese perspective. in: Sediment Problems and Sediment Management in Asian River Basins (Walling eds), IAHS Publ. Vol(349), p.52-70
- 14. SUI Jueyi, HE Yun, and LIU Cheng, Changes in Sediment Transport in the Kuye River in the Loess Plateau in China. International Journal of Sediment Research, Vol. 24, No. 2, 2009, pp. 201-213
- 15. LIU, C., SUI, J. and WANG, Z.Y., 2008. Changes in Runoff and Sediment Yield along the Yellow River during the Period from 1950 to 2006, Journal of Environmental Informatics, Vol. 12, No. 2, pp. 129-139
- LIU, Cheng, SUI, Jueyi and WANG, Zhao-Yin, Sediment load reduction in Chinese rivers, International Journal of Sediment Research, Vol. 23, No. 1, 2008, pp. 44-55
- LIU, Cheng, WANG, Zhao-Yin and HE, Yun and Cheng, Dongsheng, Evaluation of water and sediment qualities at river mouths in the Haihe River system. International Journal of Sediment Research, 2007, vol. 22, No. 4, pp.318-326
- Cheng Dongsheng, Wang Zhaoyin, Xu Jiongxin and Liu Cheng , 2006, Relationships between concentration of ions and water and sediment in the Weihe River basin, Intl. J. River Basin Management Vol. 4, No. 1 (2006), pp. 1–9
- Wang, Zhao-Yin, Wang, Guangqian, and Liu, Cheng, Viscous and Two-Phase Debris Flows in Southern China's Yunnan Plateau, Water International, Volume 30, Number 1, Pages 14–23, March 2005

- Jueyi SUI, Peter JACKSON, Cheng LIU, Daxian FANG and Jun WANG, Characteristics of sediment transport along a river reach with a reservoir, International Journal of Sediment Research, Vol. 20, No. 2, 2005, pp. 89-102 LIU, Cheng, WANG, Zhao-Yin and HE, Yun, Water Pollution in the River Mouths Around Bohai Bay, International Journal of Sediment Research, 2003, vol. 18, No. 4, pp.326-332
- 21. Cheng LIU, Zhao-Yin Wang and Chunhong Hu, Sediment Quality and Ecological Risk of the River Mouths Around Bohai Bay, International Journal of Sediment Research, 2003, vol. 18, No. 2, pp.223-230
- 22. Cheng Liu, Yun He, Joseph Hun-Wei Lee and Zhao-Yin Wang, Numerical study on environmental impacts of the Third Shanghai Sewerage Project, International Journal of Sediment Research, 2002, vol. 17, No. 2, pp. 165-173
- 23. Cheng LIU, Zhao-Yin Wang, Book review: Sediment flux modeling, International Journal of Sediment Research, 2001, vol. 16 (4): 519-520
- 24. WANG Zhaoyin, LIU Cheng, HE Yun, XIAO Qi, Inheritance and improvement of the Lower Yellow River control strategies[J]. Journal of Sediment Research, 2021,46(01):1-9. (in Chinese)
- 25. LIU Cheng, WANG Zhaoyin, HE Yun, XIAO Qi, Review on the historical control strategies of the Lower Yellow River, 2020,45(06):67-73. (in Chinese)
- LIU Cheng, LIU An. XU Mengzhen, Analysis on the Baihe River bend migration rate and its influencing factors[J]. Journal of China Institute of Water Resources and Hydropower Research, 2018, 16(005):495-502,509. (in Chinese)
- LIU A, LIU C, JI Z Q, et al. Relationship between riparian vegetation and migration of a meandering river in the Yellow River Source Region [J]. Advances in Science and Technology of Water Resources, 2018, 38(2): 57-61, 76. (in Chinese)
- 28. LIU Cheng, LIU An, Review on international sediment initiative case studies [J]. Journal of Sediment Research, 2017,42(04):73-80. (in Chinese)
- 29. LIU Jing, LI Zhiwei, TIAN Shimin, LIU Cheng, Study on meander cutoffs of the Lower Wei River in recent 60 years [J]. Journal of Sediment Research, 2017,42(01):12-19. (in Chinese)
- 30. LIU Cheng, HE Yun, LIU An. Key drivers of changes in sediment loads of rivers [J]. Advances in Science and Technology of Water Resources, 2017, 37(01):1-7. (in Chinese)
- LIU Cheng, HE Yun, CHEN Jianguo, SHI Hongling. Review of estimation of global fluvial sediment discharge to oceans [J]. Advances in Science and Technology of Water Resources, 2015,35(05):47-51+190. (in Chinese)
- 32. LIU Cheng, WANG Jianjun, HE Yun. Change in sediment loads in the Lancang-Mekong River and its influencing factors [J]. Advances in Science and Technology of Water Resources, 2013,33(01):7-12. (in Chinese)
- 33. LIU Cheng, HU Chunhong, SHI Hongling. Changes of runoff and sediment fluxes of rivers in mainland of China discharged into Pacific [J]. Journal of Sediment Research, 2011(01):70-75. (in Chinese)
- Liu, C., Wang, Z.Y. and Sui J.Y., 2008, Variation of flow and sediment of the Yellow River and their influential factors, Advances in Science and Technology of Water Resources, Vol.28, No.3, pp. 1-7(in Chinese with English abstract)
- 35. Liu, C., He, Y. and Zhang H.Y., 2008, Trends analysis of water and sediment loads of the main rivers in China using water-sediment diagram. Advances in Water Science. Vol. 19, No.3, pp.317-324 (in Chinese with English abstract)
- Liu, C., Wang, Z.Y. and Sui J.Y., 2007, Analysis on variation of seagoing water and sediment load in main rivers of China. Journal of Hydraulic Engineering. Vol. 38, No. 12 pp. 14444-1452 (in Chinese with English abstract)

- 37. Liu, C., Wang, Z.Y., He, Y. and Huang W.D., 2007, In situ measurement of sediment oxygen demand at the East Lake in Wuhan City. Journal of Hydraulic Engineering. Vol. 38, No. 11 pp. 1296-1230 (in Chinese with English abstract)
- 38. Liu, C, Wang, Z.Y., Huang W.D. and Yu, G.A., 2007. Water and sediment pollution at river mouths of Haihe River Basin, Journal of Hydralulic Engineering, Vol. 38, No.8, pp. 920-925(in Chinese with English abstract)
- Liu, C, He, Y., Wang, Z.Y. and Huang W.D.,2007. Three-dimensional numerical calculation for the selection of cylindrical SOD measurement chamber. Journal of Sediment Research, No.3, p. 38-43(in Chinese with English abstract)
- 40. Liu, C, Wang, Z.Y. and He, Y.,2005. Discussion on sediment quality standards in waters Journal of Sediment Research, No.2, p. 54-60(in Chinese with English abstract)
- 41. Liu, C, He, Y.and Wang, Z.Y., 2005. Water and sediment pollutions and their changes at the Yellow River mouth. Environmental Monitoring in China, Vol.21, No.3, p.58-61(in Chinese with English abstract)
- 42. Liu, C, Wang, Z.Y. He, Y., and Wei, H.P., 2003. Water quality and sediment quality of waters near shanghai sewage outfalls. Journal of China Institute of Water Resources and Hydropower Research. Vol.1, No.4, p.275-280,285(in Chinese with English abstract)
 Liu, C, He, Y., Lee, J.H.W. and Wei, H.P., 2003. Numerical simulation on pollutant tracking released from

the sewerage outfalls in Shanghai. Journal OF Hydraulic Engineering, No.4, p.114-118(in Chinese with English abstract)

- Liu, C, Lee, J.H.W., Wei, H.P. and Wang Z.Y., 2003. Numerical Simulation of the Hydrodynamics and Sewage Diffusion in the Changjiang River Estuary. Oceanologia et Limnologia SINICA. Vol.34, No.5, p.474-483(in Chinese with English abstract)
- 44. Liu, C, He, Y., Wei, H.P. and Wang, Z.Y., 2003. Study on Improvement Measures to Reduce Sediment Deposition in the Invariable Cross-Section Diffuser. Journal of Sediment Research, No.5, p. 54-58(in Chinese with English abstract)
- 45. Liu, C, Wang, Z.Y., He, Y. and Wu Y.S., 2003. Investigation on sediment quality of the river mouths around Bohai Bay. ACTA Scientiae Circumstantiae. Vol. 23, No.1, p. 58-63(in Chinese with English abstract)
- 46. Liu, C, Wang, Z.Y., He, Y. and Wu Y.S., 2003. Analysis on water quality of the estuary around Bohai Bay . Environmental Pollution and control. Vol.25, No.4, p.222-225(in Chinese with English abstract)
- 47. Liu, C, Wang, Z.Y., He, Y. and Wu Y.S., 2002. Evaluation on the Potential Ecological Risk for the River Mouths around Bohai Bay. Research of Environmental Sciences. Vol.15, No.5, p.33-37(in Chinese with English abstract)
- 48. Liu, C., He, Y. and Wei, H.P., 2001, Study on Circular Jet Scouring Loose Sediment Deposited over the Outlet. Journal of Sediment Research, No.6, p. 42-46(in Chinese with English abstract)
- 49. Liu, C., Wei, H.P. and He, Y., 2000, Development of the empirical equation of sediment deposition in the outfall diffuser, China Water and Wastewater, Vol.16, No.3, p. 38-40(in Chinese with English abstract)
- 50. Liu, C., Wei, H.P. and He, Y., 2000, Model tests on sediment deposition in invariable cross-section diffuser of Jiaxing marine disposal project. Marine Environmental Science, 2000, Vol.19, No.2, P.30-33 (in Chinese with English abstract)
- 51. Liu, C., Wei, H.P. and He, Y., 1999, Research on Measures to Prevent Sedimentation in the Forebay of a Pumping Station, Journal of Tongji University, Vol. 27, No.1, p.47-51 (in Chinese with English abstract)
- 52. Liu, C, Wei, H.P., Ding, Z. and Liu, W. B., Inspection and Recondition of the Wastewater Marine Discharge in Xinghuo Development Zone in Shanghai Water & Wastewater Engineering, Vol. 25, No. 3, p. 29-30 (in Chinese with English abstract)
- 53. Liu, C., He, Y. and Wei, H.P., 1999, Selection of pump suction channel configuration for sewage pumping station. Pump Technology, No. 1, p. 36-40 (in Chinese with English abstract)

- 54. Liu, C., He, Y. and Wei, H.P., 1999, Analysis on using duckbill valve in sea outfalls. China Water & Wastewater, Vol. 25, No. 7, p. 19-21 (in Chinese with English abstract)
- Liu, C., He, Y. and Wei, H.P., 1999, Superficial Analysis on Sediment Transport in City Sewer. China Water & Wastewater, Vol. 25, No. 12, p. 7-13 (in Chinese with English abstract)
- 56. Liu, C. and Ma, C.S, 1994. Experiment and research on improvement measures of forebay flow pattern of pumping stations. Journal of Anhui Institute of Architecture, Vol. 2, No. 1, p. 9-12 (in Chinese with English abstract)
- 57. Liu, C., He, Y. and Wei, H.P., 1998, Experiment study on port jet scouring ambient sediment of the Second Shanghai Sewerage Project. China Water & Wastewater, Vol. 24, No. 11, p. 20-24 (in Chinese with English abstract)
- Liu, C., He, Y. and Wei, H.P., 1998, Silt-laden water model test on SA pumping station of the Second Stage of Shanghai Combined Sewage Project. China Water & Wastewater, Vole. 14, No. 1, p. 24-26 (in Chinese with English abstract)
- 59. Liu, C., Wei, H.P. and He, Y., 1998. Analysis and Improvements of Inflow Conditions of a Sewage Pumping Station. Journal of Tongji University, Vol. 26, No. 3, p.303-306 (in Chinese with English abstract)
- 60. Liu, C., He, Y. and Wei, H.P., 1998. Regularity of the deposit and scour in the jet of wastewater disposal in ocean or river. Marine Environmental Science, Vol. 17, No. 4, p.32-36 (in Chinese with English abstract)
- 61. Liu, C. and He, Y., 1997, Sustainable development and environmental protection measures. Journal of Anhui Institute of Architecture, Vol. 5, No.2, p.41-46 (in Chinese with English abstract)
- 62. Liu, C., He, Y. and Wei, H.P., 1997, Experiment study on the flow condition and sediment deposition in the forebay of pumping station, Pump Technology, No. 3, p.40-44 (in Chinese with English abstract)
- Liu, C., Ma, C.S. and Zhang, H.Y., 1996, Experiment and research on measures to prevent sediment from depositing in the forebay of pumping station. Journal of Anhui Institute of Architecture, Vol. 4, No.1, p.29-33 (in Chinese with English abstract)
- 64. Liu, C. and He, Y., 1996. Investigation on equipment condition of the pumping stations' intake water from the Yellow river, Journal of Anhui Institute of Architecture, Vol. 4, No.2, p.46-49 (in Chinese with English abstract)
- 65. HE Yun, LIU Cheng. Experimental Study of Critical Submerged Depth and Near Field Hydraulic Characteristics of Pump Suction[J]. Journal of Xi' an University of Technology,2010,26(01):92-96. (in Chinese)
- 66. CHENG Dongsheng, WANG Zhaoyin, LIU Cheng. Runoff and sediment characteristics in the upper East River [J]. Journal of Sediment Research, 2008(05):54-59. (in Chinese)
- 67. Yu, G. A., Wang, Z. Y., Liu, C. and Huang, W. D., 2008. Investigation on sediment quality in the middle Yangtze River Journal of Sediment Research, No.4, p. 14-20 (in Chinese with English abstract)
- 68. Wu, Y.S., Liu, C. and Wang, Z.Y., 2006. Effect of tidal turbulence on the vertical distribution of phytoplankton in the Bohai Sea Journal of Hydrodynamics. Vol. 21, No. 2, p.276-284 (in Chinese with English abstract)
- 69. Wang, Z.Y., Cheng, D.S. and Liu, C., 2006. Delta processes and management strategies in China—II The Yellow and Haihe River deltas. Journal of Sediment Research, No.1, p. 76-80 (in Chinese with English abstract)
- 70. Wang, Z.Y., Cheng, D.S. and Liu, C., 2005. Delta processes and management strategies in China— The Yangtze and Pearl River deltas. Journal of Sediment Research, No.6, p. 76-80 (in Chinese with English abstract)
- He, Y., Liu, C. and Wei, H.P., 2002. Analysis and experimental study on the measures to prevent sever sedimentation in the large inverted siphons for a sewage system. Journal of Anhui Institute of Architecture, Vol.10, No.2, p.38-43 (in Chinese with English abstract)

- 72. Chen Z.J., Wei, H.P. and Liu, C., 2001. Sediment Model for Inverted Siphon within Shanghai Wastewater Municipal Engineering. Journal of Tongji University, Vol. 29, No. 6, p.738-742 (in Chinese with English abstract)
- 73. He, Y., Liu, C. and Wei, H.P., 2000. Determination of the height of riser port for sewage outfall in condition of sedimentation. Journal of Hydraulic Engineering, No.5, p.33-36(in Chinese with English abstract)
- 74. He, Y. and Liu, C., 2000. Study on the improve measures of positing a guiding plate in the forebay of a sewage pumping station. Pump Technology, No. 2, p. 21-24 (in Chinese with English abstract)
- 75. Qian, D.R., Liu, C. and Wei, H.P., 2000. Analysis on Sediment Deposition Prevent in the Inverted Siphon across Huangpu River of Wujing Minhang Wastewater Discharge Line. Water and Wastewater Engineering, Vol. 26, No. 7 (in Chinese with English abstract)
- 76. He, Y., Wei, H.P. and Liu, C., 1999. Regulation of Port Jet Scouring the Ambient Sediment. Journal of Tongji University, Vol. 27, No. 6, p.689-693 (in Chinese with English abstract)
- 77. He, Y. and Liu, C., 1998. Summarization on the research of sequencing batch reactor activated sludge method (SBR). Journal of Anhui Institute of Architecture, Vol.6, No.1, p.48-52 (in Chinese with English abstract)
- 78. He, Y., Liu, C. and Wei, H.P., 1997. Modelling of Forebay in M2 Pumping Station in the 2nd Shanghai Sewerage Project. China Municipal Engineering, No.3, p.38-41 (in Chinese with English abstract)
- 79. Zhang, H.Y., Liu, C. and Xiao, Z., 1997. Seepage control measures of medium and small sized reservoirs in Chuzhou City. Journal of Anhui Institute of Architecture, Vol.5, No.1, p.32-35 (in Chinese with English abstract) He, Y., Liu, C. and Wei, H.P., 1997. Application of sediment-laden water model test in the researches on urban sewage pumping station, Pump Technology, No.6, p.35-39 (in Chinese with English abstract)
- 80. Ma, C.S. and Liu, C., 1994. Investigation on and analysis of forebays of pumping stations intake sediment-carried water. Journal of Anhui Institute of Architecture, Vol.2, No.1, p.1-4 (in Chinese with English abstract)

Conference Papers

- 1. Liu C. & Liu A. Estimation of river bend migration rate for a meandering river by using tree ring analysis. E-proceedings of the 38th IAHR World Congress, September 1-6, 2019, Panama City, Panama. pp. 1829-1838.
- Liu An, Liu Cheng, He Yun, 2018. Relation between riparian vegetation and meander migration for a meadow meandering river in the Yellow River source region. Proceedings of the 8th International Symposium on Environmental Hydraulics (ISEH 2018), 4 – 7 June, 2018, University of Notre Dame, Indiana, USA
- Liu Cheng, He Yun, Liu An, 2018. Key Drivers of Changes in Sediment Loads of Rivers Discharging to the Oceans. Sixth International Conference on Estuaries and Coasts (ICEC-2018), August 20-23, 2018, Caen, France.
- Liu C., He Y. and Wang Z.-Y. 2007, Three-dimensional numerical calculation for cylindrical SOD measurement chamber selection, Proceedings of the 10th International Symposium on River Sedimentation. August 1-4, Moscow, Russia. Volume V, pp. 200-208
- 5. Liu Cheng, He Yun, Wang Zhaoyin, and Cheng Dongsheng, Changes in water and sediment pollution at river mouths in the Haihe river system, Proceedings of the 2nd International Conference on Estuaries and Coasts, Guangdong Economy Publishing House, pp.670-677
- Liu, Cheng, Yun He, Zhao-Yin Wang and Heping Wei, Study on the Measures to Prevent Severe Sedimentation in the Large Inverted Siphons for a Sewage System, Proceedings of ISEH&IAHR-APD2004, Hong Kong, 2004,12

- Liu, C, Wang, Z.Y. and Cheng, D.S. 2004, Nitrogen and Phosphorus Pollution of the River Mouths Around the Bohai Bay. Tan, Y.eds. Proceedings of the Ninth International Symposium on River Sedimentation: 434-439 (Invited Lecture)
- LIU, Cheng, Chunhong Hu, and Zhao-Yin Wang, Water and Sediment Pollutions and Their Changes at the Yellow River Mouth. Advances in Hydro-Science and -Engineering, Vol. VI, Altinakar, M.S. et al. (Eds). Proc. of the 6th International Conference on Hydro-Science and -Engineering, Brisbane, Australia, May 31-June 2, 2004. pp. 313 (Invited paper)
- LIU, Cheng, HE, Yun and WANG, Zhao-Yin, Medel test on the sedimentation in the invariable cross-section diffuser, Theme B, Proceedings of XXX IAHR Congress, Ganoulis J. and Prinos P. (Eds). 2003, Auth, Thessaloniki, Greece: 441-448
- LIU, Cheng, WANG, Zhao-Yin and HE, Yun and WEI Heping, Water Quality and Sediment Quality of Waters Near Shanghai Sewage Outfalls, Proceedings of the International Conference on Estuaries and Coasts, 2003, Hangzhou, China: pp.646-654
- Cheng Liu , Zhao-Yin Wang and Yun He , Water pollution in the river mouths around Bohai Bay, Proceedings of the Second International Workshop on Coastal Eutrophication 2002, Tianjin, China: pp. 197-203
- 12. Hu, Chunhong, Liu, Cheng and Zhou, Zhide. 2008. Temporal and Spatial Variations in water flow and sediment load of river in China, Proceedings of High-Level International Forum on Water Resources and Hydropower. Beijing, China, October 17-18, 2008. pp.418-429
- Hu, Chunhong, Liu, Cheng and Zhou, Zhide. 2008. Changes in water and sediment loads of river in China, International CHR Workshop - Erosion, Transport and Deposition of Sediments. Berne, Switzerland 28-30 April 2008. pp.67-73
- Shi H., Wang Y. and Liu C. 2007, Sediment yield and sediment budget of the yellow river, Proceedings of the 10th International Symposium on River Sedimentation. August 1-4, Moscow, Russia. Volume I, pp.405-414
- 15. Wu Yongsheng and Liu Cheng, A high order free surface tracking method in coastal water studies: model description and preliminary application, Proceedings of the 2nd International Conference on Estuaries and Coasts, Guangdong Economy Publishing House, pp. 1123-1129
- 16. D. Cheng, Z. Wang, J. Xu & C. Liu, Relationships between ionic concentration and water and sediment in the Lower Weihe River, Proceedings of ISEH&IAHR-APD2004, Hong Kong, 2004,12
- 17. Joseph Hun-Wei Lee, Cheng Liu and Heping Wei, Hydrodynamic simulation of the Yangtze Estuary for assessment of the Third Shanghai Sewerage Project, Proceedings of the 2001 International Symposium on Environmental Hydraulics, ISEH & IAHR, Arizona, US, 2001.12
- Wei Heping, Liu Cheng, J.H.W. Lee, Jet scouring of ambient sediment in the outfall of stage 2 Shanghai Sewerage Project, Environmental Hydraulics, J.H.W. Lee, A.W. Jayawardena and Z.Y. Wang (ed), A.A. Balkema, Rotterdam, Brookfiled, 1999:255-260

Books and Proceedings

- 1. Wang Zhaoyin, Liu Cheng, Yu Guoan, and He Yun. 2014. Integrated Management of Water, Sediment and Ecology of Rivers. Beijing: Science Press (In Chinese)
- Melching, C.S. and Liu, C. eds. Sediment Transport and Environmental Studies. Special issue of International Journal of Sediment Research. 2003, Vol. 18, No. 2
- 3. Liu, C. eds. Proceedings of the Ninth International Symposium on River Sedimentation, Vol. 4. Tsinghua University Press. 2004.9

UNESCO Publications

- Liu, C., Walling, D.E., Spreafico, M., Ramasamy, J., Thulstrup, H.D., & Mishra, A. (2017). Sediment problems and strategies for their management: experience from several large river basins. Paris, UNESCO, SC-2017/WS/13. https://unesdoc.unesco.org/ark:/48223/pf0000258795.
- 5. Wang, Z.Y., & Liu, C. (2019). Controlling the Yellow River: 2000 years of debate on control strategies. Paris, UNESCO, SC-2018/WS/20. https://unesdoc.unesco.org/ark:/48223/pf0000366591.