## Monday, August. 14, 2023 Laining hotel Room Shang Hai Ting(上海厅)-5<sup>th</sup> floor

10:00-12:00 Session: Pumps Chair: Lei Tan (Tsinghua University)							
Paper ID	Time	Paper Title	Paper Authors				
210	10:00-10:15	Investigation on flow structure and pressure fluctuation of gas-liquid two-phase flow in a mixed flow pump	Guoying WU, Yadong HAN, Yuanhang LIN, Lei TAN				
212	10:15-10:30	Study on impeller pulsation and fluid-structure coupling characteristics of guide vane type mixed flow pump	Yan Jin, Ying Xue, Fangping Tang				
222	10:30-10:45	Expression and prediction of pump and pumping station characteristics	Dengfeng Yan, Xusong Feng, Yanjun Li, Weigang Lu, Songshan Chen				
225	10:45-11:00	Research on the temperature field of a horizontal reactor coolant pump canned motor	X H Chen, R Xu, J Q Lu1, B Gong, D Z Wang				
226	11:00-11:15	Optimization of Cavitation Performance of High-Speed Centrifugal Pump Based on the Meta-Model of optimal Prognosis	Xiao-hui WANG, Kai ZHANG, Sen-chun MIAO, Jun-hu YANG, Zheng-jing SHEN				
231	11:15-11:30	Analysis of cavitation pressure fluctuation of mixed flow pump based on welch power spectrum	Wentao Xu, Li Cheng, Weixuan Jiao, Can Luo				
238	11:30-11:45	Cavitation Performance Analysis and Optimal Design of The Portable Electric-Driven Axial Flow Pump	Ding Tian, Rong Lu, Han Zhu, Yong Zhang, Guangjuan Wei, Gangyuan Li, Qiaorui Si				
243	11:45-12:00	Numerical simulation of start-up and shutdown transition process of super large flow and high-power centrifugal pump	Guosheng Xia, Anting Ma, Xuechu Zhao, Honggang Fan, Yu Xu				
12:00-12:1	5 Coffee Brea	k					
12:15-14:00 Session: Pumps Chair: Lei Tan (Tsinghua University)							
244	12:15-12:30	Characteristic Analysis of Pressure Fluctuation of the super large flow and high-power centrifugal pump during transient process of the start-up and shutdown	Shuai Liu, Anting Ma, Xuechu Zhao, Honggang Fan, Yu Xu				
247	12:30-12:45	Study on the volute optimization and mechanism of vortex loss reduction for a centrifugal fan	Wei Wang, Junlong Wang, Tingting Cu, Lefu Zhang, Jinlin Lu, Jianjun Feng, Xingqi Luo				
250	12:45-13:00	Research progress on hydraulic performance prediction method for large dredge pumps	Lei Cao, Tao Guo, Haifei Zhuang, Jingzhao Hu				
251	13:00-13:15	Rapid design method of centrifugal pump impeller based on machine learning	Yun Fei Chen, Yu Long, Wei Li, Leilei Ji, Shuo Li, Hao ming Li				
253	13:15-13:30	Experimental and numerical study on erosive wear in a dredge pump impeller	T Guo, W Wang, L Cao, J Xing				
255	13:30-13:45	Structural improvement of a dredge pump based on numerical analysis to prolong its service life	J Hu, L Cao, T Guo, Z Zhu, Y Wu				
	14:00-16:00 Lunch						
16:00-18:0	0 Session: Pu	mps Chair: Xiaomei Guo (Zhejiang University of Water Resources and Electric Power)					
327	16:00-16:15	Numerical Study on the Hysteresis Effect of Volute Pump with Stay Vanes Based on Vortex Dynamics(OL)	Y Y Su, X D Wu, B Xu, J H Feng, T P Zheng, Y Y Liu				
34	16:15-16:30	Research on Radial Force of the Volute Pump with Stay Vanes at Medium-high Specific Speed(OL)	G Zhang, J H Feng, Y Y Su, X D Wu, G Y Zeng, T Zhang				

32816:45-17:00The influence of the gap width of the blade on the performance of the mixing pumpY F Xing, R N Li, W Y Zhang, T Q Xue, Y Y Hou, L Zhao, L Bai, T Yang, Y B Yang, Y F Dong33417:00-17:15Analysis of axial forces pulsation in an high-pressure decoking pumpYanpi Lin, Shengjun Xu, Zhandong Chen, Xiaojun Li, Zhuchao Zhu33617:15-17:30Development of Wide Head Variation Pump for Liyuzhou Pump StationGong Rangqin, Zhang Guang, Chen Jianfu, Tian Xinwen, Xu Hongguang18:00-18:15Coffee Break18:10-18:15Influence of offset blade on pressure fluctuation in a centrifugal pump under different conditionsYi Zhang, Guoping Li, Changsheng Chen, Zhenlai Ma, Biwen Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan36618:30-18:45Research on the pitching hydrodynamic performance of pump-jet propelled submersibleW Han, Y Hou, T Zhang, Y F Dong, Y F Xing, T Q Xue, Y Y Expang, Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan5418:45-19:00The Influence of Blade Wrap Angle on the Internal Flow Field and Hydraulic Performance of Double- Suction Pumps for Yellow River PumpingX F Liu, W S Ma, J D Su, F Xiao, M Z Qifan Deng, Ji Pei, Wenjie Wang6319:00-19:15Rotor-Dynamic Study for High Pressure Multistage Centrifugal PumpX F Liu, W S Ma, J D Su, F Xiao, M Z Qifan Deng, Ji Pei, Wenjie Wang8419:15-19:30Transient vortical structure evolution under part-load condition in a high-power double-suction centrifugal Pump based on Liutex methodY F Hao, Li Wang, W Ei Man, Wei Han, Rennian Li20:00-22:00 Dinner19:30-19:45Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumps	271	16:30-16:45	Design method and flow analysis of a mixed flow pump based on blade load control	Demin LIU, Yangping LU, Lei TAN, Ruoyu TANG, Ming YAN, Zhichao WANG, Xiaoli DING			
33417:00-17:13Analysis of axial forces puisation in an high-pressure decoking pumpXiaojun Li, Zhuchao Zhu33617:15-17:30Development of Wide Head Variation Pump for Liyuzhou Pump StationGong Rangqin, Zhang Guang, Chen Jianfu, Tian Xinwen, Xu Hongguang18:00-18:15Coffee Break18:15-20:00Session: Pumps Chair: Xiaomei Guo (Zhejiang University of Water Resources and Electric Power)Yi Zhang, Guoping Li, Changsheng Chen, Zhenlai Ma, Biwen Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan35018:15-18:30Influence of offset blade on pressure fluctuation in a centrifugal pump under different conditionsYi Zhang, Guoping Li, Changsheng Chen, Zhenlai Ma, Biwen Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan36618:30-18:45Research on the pitching hydrodynamic performance of pump-jet propelled submersibleWina, Y P Hou, T Zhang, Y F Dong, Y F Xing, Y B Yang, L Bai, Y K 	328	16:45-17:00	The influence of the gap width of the blade on the performance of the mixing pump	Y Hou, L L Zhao, L Bai, T Yang, Y B Yang,			
35017:15-17:30Development of wide Head variation Pump for Llyuzhou Pump StationTian Xinwen, Xu Hongguang18:00-18:15Coffee Break18:15-20:00Session: Pumps Chair: Xiaomei Guo (Zhejiang University of Water Resources and Electric Power)35018:15-18:30Influence of offset blade on pressure fluctuation in a centrifugal pump under different conditionsYi Zhang, Guoping Li, Changsheng Chen, Zhenlai Ma, Biwen Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan36618:30-18:45Research on the pitching hydrodynamic performance of pump-jet propelled submersibleW Han, Y Hou, T Zhang, Y F Dong, Y F Xing, Y B Yang, L Bai, Y K Zhang, T Yang, L L Zhao, T Q Xue5418:45-19:00The Influence of Blade Wrap Angle on the Internal Flow Field and Hydraulic Performance of Double- Suction Pumps for Yellow River PumpingL M Yan, W Han, Y P Tian, X Yang, J P Zhou6319:00-19:15Rotor-Dynamic Study for High Pressure Multistage Centrifugal PumpX F Liu, W S Ma, J D Su, F Xiao, M Z8419:15-19:30pump based on Liutex methodQifan Deng, Ji Pei, Wenjie Wang8519:30-19:45Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumpsHaozhi Nan, Wei Han, Rennian Li	334	17:00-17:15	Analysis of axial forces pulsation in an high-pressure decoking pump				
18:15-20:00 Session: Pumps Chair: Xiaomei Guo (Zhejiang University of Water Resources and Electric Power)Yi Zhang, Guoping Li, Changsheng Chen, Zhenlai Ma, Biwen Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan35018:15-18:30Influence of offset blade on pressure fluctuation in a centrifugal pump under different conditionsYi Zhang, Guoping Li, Changsheng Chen, Zhenlai Ma, Biwen Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan36618:30-18:45Research on the pitching hydrodynamic performance of pump-jet propelled submersibleW Han, Y Y Hou, T Zhang, Y F Dong, Y F Xing, Y B Yang, L Bai, Y K Zhang, T Yang, L L Zhao, T Q Xue5418:45-19:00The Influence of Blade Wrap Angle on the Internal Flow Field and Hydraulic Performance of Double- Suction Pumps for Yellow River PumpingL M Yan, W Han, Y P Tian, X Yang, J P Zhou6319:00-19:15Rotor-Dynamic Study for High Pressure Multistage Centrifugal PumpX F Liu, W S Ma, J D Su, F Xiao, M Z8419:15-19:30Transient vortical structure evolution under part-load condition in a high-power double-suction centrifugal pump based on Liutex methodQifan Deng, Ji Pei, Wenjie Wang8519:30-19:45Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumpsHaozhi Nan, Wei Han, Rennian Li	336	17:15-17:30	Development of Wide Head Variation Pump for Liyuzhou Pump Station				
35018:15-18:30Influence of offset blade on pressure fluctuation in a centrifugal pump under different conditionsYi Zhang, Guoping Li, Changsheng Chen, Zhenlai Ma, Biwen Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan36618:30-18:45Research on the pitching hydrodynamic performance of pump-jet propelled submersibleW Han, Y Y Hou, T Zhang, Y F Dong, Y F Xing, Y B Yang, L Bai, Y K Zhang, T Yang, L L Zhao, T Q Xue5418:45-19:00The Influence of Blade Wrap Angle on the Internal Flow Field and Hydraulic Performance of Double- Suction Pumps for Yellow River PumpingL M Yan, W Han, Y P Tian, X Yang, J P Zhou6319:00-19:15Rotor-Dynamic Study for High Pressure Multistage Centrifugal PumpX F Liu, W S Ma, J D Su, F Xiao, M Z8419:15-19:30Transient vortical structure evolution under part-load condition in a high-power double-suction centrifugal pump based on Liutex methodQifan Deng, Ji Pei, Wenjie Wang8519:30-19:45Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumpsHaozhi Nan, Wei Han, Rennian Li	18:00-18:15 Coffee Break						
35018:15-18:30Influence of offset blade on pressure fluctuation in a centrifugal pump under different conditionsZhenlai Ma, Biwen Chen, Bo Gao, Yangping Lu, Yuhan Gao, Lei Tan36618:30-18:45Research on the pitching hydrodynamic performance of pump-jet propelled submersibleW Han, Y Y Hou, T Zhang, Y F Dong, Y F Xing, Y B Yang, L Bai, Y K Zhang, T Yang, L L Zhao, T Q Xue5418:45-19:00The Influence of Blade Wrap Angle on the Internal Flow Field and Hydraulic Performance of Double- Suction Pumps for Yellow River PumpingL M Yan, W Han, Y P Tian, X Yang, J P Zhou6319:00-19:15Rotor-Dynamic Study for High Pressure Multistage Centrifugal PumpX F Liu, W S Ma, J D Su, F Xiao, M Z8419:15-19:30Transient vortical structure evolution under part-load condition in a high-power double-suction centrifugal pump based on Liutex methodQifan Deng, Ji Pei, Wenjie Wang8519:30-19:45Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumpsHaozhi Nan, Wei Han, Rennian Li	18:15-20:00 Session: Pumps Chair: Xiaomei Guo (Zhejiang University of Water Resources and Electric Power)						
36618:30-18:45Research on the pitching hydrodynamic performance of pump-jet propelled submersibleXing, Y B Yang, L Bai, Y K Zhang, T Yang, L L Zhao, T Q Xue5418:45-19:00The Influence of Blade Wrap Angle on the Internal Flow Field and Hydraulic Performance of Double- Suction Pumps for Yellow River PumpingL M Yan, W Han, Y P Tian, X Yang, J P Zhou6319:00-19:15Rotor-Dynamic Study for High Pressure Multistage Centrifugal PumpX F Liu, W S Ma, J D Su, F Xiao, M Z8419:15-19:30Transient vortical structure evolution under part-load condition in a high-power double-suction centrifugal pump based on Liutex methodQifan Deng, Ji Pei, Wenjie Wang8519:30-19:45Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumpsHaozhi Nan, Wei Han, Rennian Li	350	18:15-18:30	Influence of offset blade on pressure fluctuation in a centrifugal pump under different conditions	Zhenlai Ma, Biwen Chen, Bo Gao,			
5418:45-19:00Suction Pumps for Yellow River PumpingL M Yah, W Hah, Y P Hah, X Yahg, J P Zhou6319:00-19:15Rotor-Dynamic Study for High Pressure Multistage Centrifugal PumpX F Liu, W S Ma, J D Su, F Xiao, M Z8419:15-19:30Transient vortical structure evolution under part-load condition in a high-power double-suction centrifugal pump based on Liutex methodQifan Deng, Ji Pei, Wenjie Wang8519:30-19:45Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumpsHaozhi Nan, Wei Han, Rennian Li	366	18:30-18:45	Research on the pitching hydrodynamic performance of pump-jet propelled submersible	Xing, Y B Yang, L Bai, Y K			
8419:15-19:30Transient vortical structure evolution under part-load condition in a high-power double-suction centrifugal pump based on Liutex methodQifan Deng, Ji Pei, Wenjie Wang8519:30-19:45Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumpsHaozhi Nan, Wei Han, Rennian Li	54	18:45-19:00		L M Yan, W Han, Y P Tian, X Yang, J P Zhou			
84 19:15-19:30 pump based on Liutex method Qifan Deng, Ji Pei, Wenjie Wang   85 19:30-19:45 Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumps Haozhi Nan, Wei Han, Rennian Li	63	19:00-19:15	Rotor-Dynamic Study for High Pressure Multistage Centrifugal Pump	X F Liu, W S Ma, J D Su, F Xiao, M Z			
	84	19:15-19:30		Qifan Deng, Ji Pei, Wenjie Wang			
20:00-22:00 Dinner	85	19:30-19:45	Effect of airfoil trailing edge up on the performance of gas-liquid multiphase pumps	Haozhi Nan, Wei Han, Rennian Li			

## **Online connections:**

Tencent Meeting (VooV Meeting): ID: 594-352-982