

CAV2021_Preliminary Program

Presentation Code	Paper No.	PaperTitle	Authors
1121-T01-01	P00062	Pairwise coalescence of surface nuclei in diffusion-driven nucleation	Mr. Benedict Christian Depp , Mr. Grigorios Hatzisawidis, Prof. Peter Franz Pelz
1121-T01-02	P00100	An experimental consideration of occurrence condition of gaseous cavitation in oil	Prof. Yuka Iga , Dr. Junnosuke Okajima, Mr. Shunpei Takahashi, Mr. Yousuke Ibata
1121-T01-03	P00113	The role of KI solution in the development of hydrodynamic cavitation on chip	Mr. Mohammad Jafarpour , Mr. Farzad Rokhsar Talabazar, Prof. Ali Koşar, Dr. Morteza Ghorbani
1121-T01-04	P00121	Reynolds number effects on pressure fluctuations and cavitation inception in a turbulent shear layer	Ms. Karuna Agarwal , Dr. Omri Ram, Dr. Jin Wang, Mr. Yuhui Lu, Prof. Joseph Katz
1121-T01-05	P00127	Sustained Attached Cavitation Inception from Residual Nuclei Generated During Collapse of Previous Events	Dr. OMRI RAM , Ms. karuna agarwal, Prof. Joseph katz
1121-T01-06	P00130	DIRECT NUMERICAL SIMULATION OF HETEROGENEOUS BUBBLE NUCLEATION	Mr. Mandeep Saini , Prof. Stephane Zaleski, Dr. Daniel Fuster
1221-T01-07	P00212	Nucleation Dynamics in Cloud Cavitation	Dr. Patrick Spenser Russell , Dr. Luka Barbaca, Dr. James Andrew Venning, Dr. Bryce William Pearce, Prof. Paul Anthony Brandner
1221-T01-08	P00213	The effect of nuclei on the attachment hysteresis in cavitating trailing vortices	Dr. James A. Venning , Dr. Rhys A. Paul, Mr. Matthew T. Khoo, Dr. Bryce William Pearce, Prof. Paul A. Brandner
1022-T02-01	P00012	A Model for the Laser-induced Cavitation Bubble	Mr. Xiaoxu Zhong , Mr. Javad Eshraghi, Prof. Pavlos Vlachos, Prof. Sadegh Dabiri, Prof. Arezoo Ardekani
1022-T02-02	P00017	Cavitation modeling in liquids subject to large accelerations	Ms. Maathanqi Ganesh , Dr. Arezoo M Ardekani, Dr. Sadegh Dabiri
1022-T02-03	P00027	Analytical solution and frequency response curves for the R-P equation with a surfactant and a Maxwell fluid as damping agents using a refined asymptotic perturbation method	Prof. jorge naude, Mr. Cesar Yepes , Prof. Federico Mendez, Prof. Margarita Navarrete
1022-T02-04	P00031	Numerical Investigation on Underwater Explosion with Thermodynamic Cavitation Process	Mr. Kyungjun Choi , Ms. Hyunji Kim, Prof. Chongam Kim
1122-T02-05	P00052	Unsteady dynamics of bubble plume	Mr. Hyunseok Kim , Prof. Hyungmin Park
1122-T02-06	P00054	Weakly Nonlinear Propagation of Pressure Waves in a Flowing Water Containing Translational Bubbles Acting as a Drag Force: Multiple-Scales Theory and Long-Period Computation	Mr. Takahiro Yatabe, Mr. Takahiro Ayukai, Prof. Tetsuya Kanagawa
1122-T02-07	P00055	Nonlinear Waves in Bubbly Liquids with a Strong Thermal Effect: Interaction Between Wave Nonlinearity and Thermodynamics inside Bubble and Contribution of Thermal Conduction at Bubble-Liquid Interface	Mr. Takafumi Kamei, Mr. Takahiro Ayukai, Prof. Tetsuya Kanagawa
1122-T02-08	P00056	Evaluation of the Kelvin Impulse on Single Bubble Shock-Induced Collapse Near Flexible Boundaries	Ms. Rubani Firiy , Prof. Kazuki Inaba, Prof. Farid Triawan, Prof. Kikuo Kishimoto, Dr. Keisuke Hayabusa, Dr. Hiroaki Nakamoto
1122-T02-09	P00059	The dynamics of a single cavitation bubble in a micro-confinement	Mr. Konstantin Leonov , Prof. Iskander Akhatov
1122-T02-10	P00066	Compressible 3D-simulations of spherical bubble collapses in viscoelastic fluids	Mr. Christian Lang , Dr. Steffen J. Schmidt, Prof. Nikolaus A. Adams
1222-T02-11	P00086	Numerical study on pressure wave propagation in bubbly liquid by an weakly nonlinear equation based on a two-fluid model	Mr. Takahiro Ayukai , Prof. Tetsuya Kanagawa
1223-T02-12	P00104	Numerical Study of Microbubble Cavitation on a Solid Surface	Mr. Seongjin Hong , Prof. Gihun Son
1222-T02-13	P00111	Unsteady Bubbly Cavitating Nozzle Flows Using A Novel Reduced-Order Gas Pressure Law	Prof. Can F. Delale , Dr. Senay Pasinlioglu, Dr. Mehmet Kaya, Prof. Erkan Ayder, Mr. Ugurcan Morkoyun
1223-T02-14	P00118	Dynamics of Transitional Air Layers	Ms. Lina Nikolaidou , Dr. Angeliki Laskari, Prof. Tom van Terwisga, Prof. Christian Poelma
1222-T02-15	P00126	Basic Theory on an Interaction Between Nonlinear and Thermal Effects toward Microbubble-Enhanced Focused Ultrasound Treatment	Mr. Shunsuke Kagami , Prof. Tetsuya Kanagawa
1223-T02-16	P00150	Weakly Nonlinear Theory Based on Nonlinear Wave Equations for Pressure Waves in Bubbly Liquids with an Initial Polydispersity	Mr. Takuma Kawame , Prof. Tetsuya Kanagawa, Mr. Reona Ishitsuka
1222-T02-17	P00157	Acoustically-Induced Bubble Growth and Phase Change Dynamics near Compliant Surfaces	Dr. Mauro Rodriguez , Dr. Spencer H. Bryngelson, Dr. Shunxiang Cao, Dr. Tim Colonius
1223-T02-18	P00183	Dynamics of cylindrical cavitation bubbles by tube-arrest method	Ms. Peng Xu , Dr. Zhigang Zuo, Prof. Shuhong Liu, Dr. Zhao Pan
1222-T02-19	P00184	Thermodynamic effects in cylindrical cavitation bubble dynamics	Ms. Xu Meng , Dr. Haochen Zhang, Dr. Hui Chen, Dr. Zhigang Zuo, Prof. Shuhong Liu
1223-T02-20	P00189	DYNAMICS CHARACTERIZATION OF THE ACOUSTICALLY DRIVEN SINGLE MICROBUBBLE NEAR A RIGID BOUNDARY	Dr. Hao Wu , Dr. Yuanyuan Li, Prof. Haixia Yu, Prof. Dachao Li
1222-T02-21	P00193	Gas Bubble Shock-Wave Interaction in Gelatine	Dr. Siew-Wan Ohl , Prof. Claus-Dieter Ohl
1223-T02-22	P00196	Experimental observation of micrometric bubble pair oscillations and induced effects	Mr. Gabriel Regnault , Dr. Cyril Mauger, Prof. Alexander Doinikov, Prof. Philippe Blanc-Benon, Dr. Claude Insera
1322-T02-23	P00200	Experimental Investigation of Fluid Flows Induced by Aspherical Bubbles	Mr. Maxime Fauconnier
1323-T02-24	P00205	The Virtual Frame Technique Applied to Cavitation Bubble Collapse: Ex Uno Plures	Mr. Armand Sieber , Dr. Mohamed Farhat
1322-T02-25	P00215	Dynamics of Micro-Bubbles In A Potential Flow About A Sphere	Dr. Rhys A. Paul , Dr. James A. Venning, Prof. Paul A. Brandner, Dr. Luka Barbaca, Dr. Bryce W. Pearce
1323-T02-26	P00221	Upward jet induced by a vapor bubble collapse near an armored surface	Dr. fangye Lin, Prof. Jun Zou
1322-T02-27	P00224	A PIV Measurement for Single, Double Laser-Induced Cavitation Bubbles and Their Near Wall Dynamics	Mr. Ben Zhao, Mr. Kunpeng Long , Prof. Olivier Coutier-Delgosha
1323-T02-28	P00089	Compressibility and Vorticity Contributions in the Non-Spherical Collapse of a Bubble Near a Rigid Boundary	Mr. Minki Kim , Dr. Shahaboddin Alahyari Beig, Prof. Eric Johnsen
1322-T02-29	P00094	Numerical study on the wall pressure caused by spark-generated underwater bubble near a hemispheric boundary	Dr. Thanh-Hoang Phan , Prof. Van-Tu Nguyen, Dr. Trong-Nguyen Duy, Prof. Wam-Gyu Park
1323-T02-30	P00103	Numerical Assessment of Interface Capturing Multicomponent Flow Models in Predicting Non-spherical Bubble Collapse	Dr. Aswin Gnanaskandan
1322-T02-31	P00125	A water tunnel with inline cyclone separator for removing freestream bubble	Mr. Yuhui Lu , Dr. Omri Ram, Mr. Jibu Jose, Ms. Karuna Agarwal, Prof. Joseph Katz
1323-T02-32	P00159	On the cloud interaction parameter and its connections with the coherence and discrete spectrum of bubble cloud dynamics	Dr. Kazuki Maeda , Dr. Daniel Fuster
1322-T02-33	P00197	LES of cavitating shear layer	Mr. Filipe L Brandao , Prof. Krishnan Mahesh
1323-T02-34	P00216	Microbubble Production in a Confined Cavitating Radial Jet	Dr. Luka Barbaca , Dr. Rhys A. Paul, Dr. James A. Venning, Dr. Patrick S. Russell, Dr. Bryce W. Pearce, Prof. Paul A. Brandner

Presentation Code	Paper No.	PaperTitle	Authors
1024-T03-01	P00013	Advanced Collapse Clustering Algorithms for Numerical Cavitation Erosion Prediction	Ms. Theresa Trummler, Mr. Fabian Thiery, <u>Dr. Steffen J Schmidt</u> , Prof. Nikolaus A Adams
1024-T03-02	P00024	Numerical analysis of vortex cavitation in an impulsive water jet by a compressible mixture flow method	Prof. Guoyi Peng
1123-T03-03	P00047	A Numerical Study of Unsteady Hydrodynamic Characteristics on hydrofoils with leading edge protuberances: Cavitation Investigation with LES	Mr. Mohammad Reza Pendar, <u>Prof. Ehsan Roohi</u>
1123-T03-04	P00048	Cavitating Flow Structure and Noise Suppression Analysis of a Hydrofoil with Wavy Leading Edges	Mr. Mohammad Reza Pendar, <u>Prof. Ehsan Roohi</u>
1123-T03-05	P00049	Conditional Moment Method for Fully-Coupled Phase-Averaged Cavitation Models	<u>Dr. Spencer H. Bryngelson</u> , Prof. Rodney O. Fox, Prof. Tim Colonius
1123-T03-06	P00083	Multiphase Flows Analysis of an Asymmetric Body Using Improved Interface Capturing Method with a New Cavitation Model	<u>Dr. NGUYEN DUY TRONG</u> , Prof. WARN-GYU PARK
1123-T03-07	P00088	Eulerian Framework for Bubble-Cloud--Kidney Stone Interaction	<u>Mr. Jean-Sebastien Spratt</u> , Dr. Mauro Rodriguez, Dr. Spencer H. Bryngelson, Dr. Shunxiang Cao, Dr. Tim Colonius
1123-T03-08	P00098	Design of cavitating micro-reactor using CFD	<u>Mr. Gaurav Dastane</u> , Ms. Prachi Dwidmuthe, Prof. Aniruddha B Pandit
1224-T03-09	P00115	Experimental Visualization and Numerical Simulation of a Water Cavitation Jet Peening	<u>Mr. Zhaofeng Han</u> , Prof. Thibaut Chaise, Prof. Cyril Mauger, Prof. Thomas Elguedj, Prof. Nicolas Boisson, Prof. Mahmoud El Hajem
1224-T03-10	P00122	Wall-Resolved Large Eddy Simulation Employing Multi-Process Cavitation Model around Clark Y-11.7% Hydrofoil	Dr. Shin-ichi Tsuda
1224-T03-11	P00129	A study on application of single and two-fluid models to numerical simulation of vortical cavitating flows	<u>Mr. Takuji Ikeda</u> , Dr. Motohiko Nohmi, Dr. Takayuki Suzuki, Prof. Satoshi Watanabe, Prof. Shin-ichi Tsuda, Prof. Kazuyoshi Miyagawa, Prof. Hironori Horiuchi
1224-T03-12	P00137	NUMERICAL SIMULATION OF CAVITATING FLOW PAST A CYLINDRICAL PIN LOCATED AT THE THROAT OF A VENTURI	Mr. Mohit Kannan, <u>Dr. Dhiman Chatterjee</u>
1224-T03-13	P00141	Wave Systems in an Internal Ship Air Cavity and Their Effect on Air Leakage: A Numerical Investigation	Dr. Timofey Mukha, <u>Prof. Rickard E. Bensow</u>
1224-T03-14	P00155	Development of generalized CFD model for cavitating flows	Mr. Sachin Bhaskar Zanje, Dr. Kannan Iyer, Dr. Janani Srree Muralidharan, Mr. Hemant Punekar, <u>Mr. Padmesh Mandloi</u> , Mr. Vinay Kumar Gupta
1321-T03-15	P00171	Analysis of Discretization and Modeling Errors in Simulations of Cavitating Flows	<u>Prof. Milovan Peric</u> , Dr. Samir Muzafereja, Dr. Dejan Radosavljevic
1321-T03-16	P00191	Hydrodynamic cavitation investigations with homogeneous and inhomogeneous multiphaseow models in OpenFOAM context	<u>Mr. Ville Viitanen</u> , Mr. Juho Peltola
1321-T03-17	P00204	Preconditioning and dual-time stepping based approach for the simulation of cavitating flows at low Mach numbers using a fully-compressible homogeneous mixture model	Dr. Mrugank Bhatt, <u>Prof. Krishnan Mahesh</u>
1321-T03-18	P00207	A Volume-of-Fluid (VOF) Methodology for the Prediction of Cavitation Phenomena	<u>Mr. Ali Fakhreddine</u> , Dr. Karim Alamé, Prof. Krishnan Mahesh
1321-T03-19	P00210	A Numerical Model For Encapsulated Microbubbles Using A Coupled Level Set And Volume-Of-Fluid Method	<u>Mr. Bashir M. Alnajjar</u> , Dr. Indrajit Chakraborty, Prof. Michael L. Calvisi
1321-T03-20	P00222	Shock-Raindrop Interaction and Potential for Cavitation-Induced Droplet Breakup	Ms. Caroline Anderson, Dr. Michael Patrick Kinzel
1024-T04-01	P00016	NUMERICAL SIMULATIONS OF UNSTEADY CAVITATION IN 3-D VENTURI FLOWS	<u>Mr. Camille Gouin</u> , Dr. Carlos Junqueira-Junior, Prof. Eric Goncalves, Prof. Jean-Christophe Robinet
1024-T04-02	P00022	Kelvin-Helmholz Instability Driven Shedding of Cavitation Clouds in Microchannels	Dr. Darjan Podbevek, Dr. Martin Petkovsek, Prof. Claus Dieter Ohi, <u>Prof. Matevz Dular</u>
1124-T04-03	P00041	Detachment of Cavitating Rings in Long-throat Venturi Reactor	<u>Mr. Javier Rosas</u> , Dr. Margarita Navarrete, Prof. Jorge naude, Dr. Federico Méndez, Dr. Rodrigo Mayén-Mondragón
1124-T04-04	P00061	Modal decomposition of cloud cavitation about a NACA 0015 hydrofoil	<u>Mr. Grigoris Hatzisawidis</u> , Dr. Gerhard Ludwig, Prof. Peter Franz Pelz
1124-T04-05	P00068	DECOMPOSITION OF UNSTEADY SHEET/CLOUD CAVITATION DYNAMICS IN FLUID-STRUCTURE INTERACTION	<u>Dr. Yiqing Liu</u> , Prof. Qin Wu, Prof. Biao Huang, Prof. Guoyu Wang
1124-T04-06	P00073	VISVE, a Vorticity Based Model Applied to 2-D Hydrofoils in Cavitating Conditions	<u>Mr. KONSTANTINOS ILIOPOULOS</u> , Prof. Spyros Kinnas
1124-T04-07	P00078	Visualization Study on the Flow Field Characteristics of Self-resonating Cavitating Nozzle	<u>Mr. Xiaoya Wu</u> , Dr. Yiqun Zhang, Prof. Gensheng Li, Mr. Yawen Tan, Mr. Wei Wang, Dr. Kewen Peng
1124-T04-08	P00090	Experiment Study of Sheet Cavitation on Heated NACA0015 Hydrofoil	<u>Mr. Ning Yang</u> , Prof. Junnosuke Okajima, Prof. Yuka Iga
1324-T04-09	P00105	Dynamics of Re-entrant Jet in a Cavitating Venturi	<u>Mr. Udhav Ulhas Gawandalkar</u> , Prof. Christian Poelma
1324-T04-10	P00107	An Artificial Neural Network Model for Predicting the Behavior of Cavitation Cloud	<u>Dr. Yawen Tan</u> , Prof. Shouceng Tian, Dr. Chao Yu, Dr. Xiaoya Wu, Mr. Luyao Ma
1324-T04-11	P00117	Multi-Scale Proper Orthogonal Decomposition For Cavitating Flows: Applications To Isothermal And Thermosensitive Cavitation	<u>Dr. Claudia Esposito</u> , Prof. Miguel Alfonso Mendez, Prof. Johan Steelant, Prof. Maria Rosaria Vetrano
1324-T04-12	P00160	Cavitation Dynamics over a Pitching Plano-Convex Hydrofoil	<u>Mr. Anubhav Bhatt</u> , Dr. Harish Ganesh, Dr. Steven L. Ceccio
1324-T04-13	P00198	The Intensity and Topology Changing of Sheet/Cloud Cavitation at Different Temperatures	<u>Mr. Mingming Ge</u> , Mr. Guangjian Zhang, Mr. Kunpeng Long, Dr. Olivier Coutier-Delgosha
1125-T05-01	P00011	Controlled Surface Roughness Application in Tip Vortex Mitigation and Inception Delay	<u>Prof. Rickard E. Bensow</u> , Dr. Abolfazl Asnaghi, Dr. Urban Svennberg
1125-T05-02	P00075	On Scale Effects of Propeller Tip Vortex Cavitation with a Detached Eddy Simulation Method	<u>Mr. Rong-gang Nie</u> , Dr. Zi-ru Li, Dr. Wei He
1125-T05-03	P00132	MECHANISMS OF DIFFUSION-DRIVEN GROWTH OF VORTEX-CAVITIES FOLLOWING INCEPTION	Mr. Swaraj Nanda
1125-T05-04	P00144	Optical Cavitation Inspection System (OCIS) for Higher Order Pressure Fluctuations	Dr. Eric Ebert
1125-T05-05	P00153	Simulation of the Dynamics of Tip Vortex Cavities with Relaxation Zones and an Axis-symmetric Panel Method	<u>Mr. Roland Gosda</u> , Dr. Robinson Peric, Prof. Moustafa Abdel-Maksoud
1125-T05-06	P00167	An Experimental Study Of Cavitation Inception Due To Vortex Interaction	<u>Mr. Daniel Knister</u> , Ms. Elizabeth Callison, Dr. Harish Ganesh, Prof. Steven L. Ceccio
1325-T05-07	P00174	PREDICTION OF DEVELOPED TIP VORTEX CAVITATION VIA A LOW ORDER PANEL METHOD	<u>Mr. Seungnam Kim</u> , Prof. Spyros A. Kinnas
1325-T05-08	P00175	Cavitation Bubble Dynamics in a Line Vortex	Mr. Pranav Mohan, <u>Dr. Sadeq Dabiri</u>
1325-T05-09	P00187	Modeling of tip leakage cavitating flows with a multiscale mathematical model	<u>Dr. Limmin Li</u> , Mr. Zhengdong Wang, Dr. Xiaojun Li, Prof. Zuchao Zhu
1325-T05-10	P00081	Numerical Simulation of Tip Vortex Cavitation Inception	<u>Mr. Ebrahim Ghahramani</u> , Dr. Urban Svennberg, Prof. Rickard Bensow

Presentation Code	Paper No.	PaperTitle	Authors
1026-T06-01	P00007	Motion Simulations of Supercavitating body with Variable Ventilations	Dr. Wang Zou
1026-T06-02	P00009	Experimental investigation of water entry ventilated supercavitation with liquid jet cavitator	Dr. Yunhua Jiang, Mr. Zhihui Zou, Mr. Yang Li, Ms. Jin Guo, Prof. Hui Qi
1026-T06-03	P00032	Interaction mechanism between the ventilated supercavity and the tail jetting flow	Prof. Min Xiang
1026-T06-04	P00045	Experimental Verification of Mathematical Model of the Supercavitating Underwater Vehicle Dynamics	Dr. Victor Kochin, Dr. Moroz Volodymyr, Prof. Volodymyr Semenenko, Dr. Bu-Geun Paik
1126-T06-05	P00063	Study of flow problems a super-cavitating body under conditions of significant accelerations of motion	Dr. Vladimir Serebryakov
1126-T06-06	P00093	Numerical simulation of supercavitating flow around a submerged projectile near a free surface	Prof. Van-Tu Nguyen, Dr. Thanh-Hoang Phan, Dr. Trong-Nguyen Duy, Prof. Warn-Gyu Park
1126-T06-07	P00146	An Experimental Study on Ventilated Supercavitation by Injection of 1,000°C Combustion Gas	Dr. David Nagarathinam, Mr. Ji-Woo Hong, Mr. Ki-Seong Kim, Mr. Bahan Ji, Prof. Byoung-Kwon Ahn
1126-T06-08	P00161	On supercavitation around a rectangular body	Dr. Damien Colombet, Prof. Eric Goncalves, Mr. Lionel Perrin, Dr. Gilles Ledoux, Prof. Frederic Ayela
1027-T07-01	P00018	THREE-DIMENSIONAL SIMULATION OF BUBBLE COLLAPSE NEAR A WALL	Prof. Eric Goncalves
1027-T07-02	P00021	Wavelet Analysis of Impact Force Due to Single Bubble Shock-Induced Collapse Near Rigid and Coated Surfaces	Ms. Rubani Firly, Prof. Kazuaki Inaba, Prof. Farid Triawan, Prof. Kikuo Kishimoto, Dr. Keisuke Hayabusa, Dr. Hiroaki Nakamoto
1027-T07-03	P00036	Assessment of erosive aggressiveness due to the condensation shock by numerical simulation	Dr. Wei Zhang, Dr. Bing Zhu
1027-T07-04	P00042	Experimental Device for the Study of Erosion by Ultrasonic Cavitation	Mr. Javier Rosas, Dr. Margarita Navarrete, Mr. Javier Zenteno, Prof. Jorge Naude, Dr. Federico Mendez, Dr. Rodrigo Mayén-Mondragón
1127-T07-05	P00058	Mechanism of Cavitation Erosion in a Hydraulic Control Valve	Mr. Gaia Kobayashi, Prof. Kohei Okita, Mr. Teruyuki Furukawa, Mr. Yuusuke Miyamoto, Mr. shinobu Nagura, Prof. Shu Takagi, Prof. Hiroharu Kato
1127-T07-06	P00077	ULTRASONIC CAVITATION EROSION MECHANISM OF FREE FLOATING Al ₃ Zr INTERMETALLICS	Mr. Abhinav Priyadarshi, Mr. Shazamin Bin Shahran, Dr. Tungky Subroto, Dr. Marcello Conte, Dr. Paul Prentice, Prof. Koulis Pericleous, Prof. Dmitry Eskin, Prof. John Durodola, Prof. Iakovos Tzanakis
1127-T07-07	P00092	Investigation on Cavitation Erosion in Axisymmetric Nozzles Using a Pressure-based Fully Compressible Flow Solver	Mr. Insu Lee, Prof. Sunho Park, Dr. Woonchan Seok, Prof. Shin Hyung Rhee
1127-T07-08	P00095	Experimental and numerical investigation of cavitation erosion in ultrasonic erosion devices with varying gap width	Mr. Felix Schreiner, Prof. Romuald Skoda
1127-T07-09	P00102	Numerical assessment of cavitation erosion for a nozzle flow configuration	Mr. Mehmet Ozgunoglu, Mr. Mohammad Hossein Arabnejad, Prof. Michael Oevermann, Prof. Rickard Benschow
1127-T07-10	P00106	Effect of Temperature on the Ultrasonic Exfoliation of Graphite	Mr. Justin Morton, Dr. Ling Qin, Dr. Barbara Maciejewska, Dr. Anastasia Tyurnina, Dr. Kyriakos Porfyriakis, Prof. Nicole Grobert, Prof. Dmitry Eskin, Prof. Jiawei Mi, Prof. Iakovos Tzanakis
1227-T07-11	P00128	NUMERICAL PREDICTION OF CAVITATION EROSION IN A CENTRIFUGAL PUMP	Dr. Motohiko Nohmi, Mr. Tomoki Tsuneda, Dr. Shusaku Kagawa, Dr. Hiroaki Nakamoto
1227-T07-12	P00180	On high-speed cavitating jets used for erosion tests	Mr. Davide Bernardo Preso, Dr. Mohamed Farhat
1227-T07-13	P00182	Evaluation of compressible and incompressible 3D flow solution methods for the assessment of cavitation erosion in ultrasonic erosion devices	Mr. Magnus Haese, Mr. Felix Schreiner, Prof. Romuald Skoda
1227-T07-14	P00185	Experimental study on quantification of impact of propeller cavitation using on-board sensors	Dr. Hongseok Jeong, Dr. Hanshin Seol
1227-T07-15	P00186	Estimation Of Cavitation Erosion Damage With Anomaly Detection Neural Networks	Mr. Lukas Harsch, Dr. Oliver Kirschner, Prof. Stefan Riedelbauch, Dr. Joerg Necker
1227-T07-16	P00192	Impact of Injector Geometry Details on Cavitation and Erosion Development in a Multi-hole Aluminum Injector Nozzle	Dr. Gina M. Magnotti, Dr. Aniket Tekawade, Dr. Brandon A. Sforzo, Dr. Alan L. Kastengren, Dr. Christopher F. Powell, Dr. Sibendu Som
1028-T08-01	P00010	Accuracy Verification of Cavity Shape Measurement Using Combination Line CCD Camera Measurement Method	Dr. Koichiro Shiraishi
1028-T08-02	P00019	Performance Prediction of Composite Marine Propeller in Non-cavitating and Cavitating Flow	Dr. Ji-HYE KIM, Dr. Hyongsuk Lee, Mr. Sung-Hoon Kim, Mr. Hee-Young Choi, Mr. Zoo-Hwan Hah, Dr. Han-Shin Seol
1028-T08-03	P00029	Cavitation Performance Evaluation Results for a Waterjet Propulsion System with an Amphibious Assault Vehicle Hull	Dr. Taehyung Kim, Dr. Jeongil Seo, Dr. Jaemoon Han, Mr. Dojun Kim
1028-T08-04	P00033	A FULL SCALE NUMERICAL APPROACH TO THE PREDICTION OF CAVITATION BEHAVIOR AND HULL PRESSURE FLUCTUATION INDUCED BY MARINE PROPELLER	Mr. Jung-yun Won, Mr. Jaewook Hur, Mr. Jeong-yong Park, Dr. Hyongsuk Lee
1128-T08-05	P00080	Numerical Investigation of Full-Scale Cavitating Propeller Underwater Radiated Noise	Mr. Savas Sezen, Dr. Batuhan Aktas, Prof. Mehmet Atlar, Prof. Patrick Fitzsimmons
1128-T08-06	P00110	A Simplified Method to Assess Cavitation Erosion on Marine Propellers and Its Application to Blade Section Design	Dr. Zhibo Zeng
1128-T08-07	P00112	Tip vortex cavitation suppression by tip modification of a ship propeller	Dr. Keun Woo Shin, Prof. Poul Andersen
1128-T08-08	P00176	The Numerical Study of the Cavitation flow of the propeller in the wake of the ice block	Dr. Shi Liang Hu, Dr. Shen Wu, Mr. Feng Diao

Presentation Code	Paper No.	PaperTitle	Authors
1025-T09-01	P00030	Computations of Cavitating Flows: Cryogenic Cavitation of Inducer and Supercavitating Underwater Vehicles	Ms. Hyunji Kim , Mr. Yohan Choe, Mr. Kyungjun Choi, Prof. Chongam Kim
1025-T09-02	P00035	Study on a rapid decrease of flow rate in auxiliary feedwater system using CFD	Mr. Jaemin Lee
1025-T09-03	P00038	Three Dimensional Numerical Simulation Analysis of Two-phase Flow in Nozzle with Grooves	Dr. Yunpeng Wei , Prof. Liyun Fan, Mr. Hongwei Lu, Dr. Yuanqi Gu
1025-T09-04	P00040	Large Eddy Simulation of transient cavitating vortical flow in the wake of an hydrofoil	Mr. JIAN CHEN , Mr. LINLIN GENG, Prof. XAVIER ESCALER
1126-T09-05	P00044	Introduction to CFD Simulation Cases for Cavitation Flow in the In-service Testing related Components	Dr. Gong hee Lee
1126-T09-06	P00084	NUMERICAL STUDY ON HEAD LOSS AND FLOW QUALITY FOR LARGE CAVITATION TUNNEL	Prof. Jung-Kyu Choi , Prof. Hyoung-Tae Kim, Prof. Chang-Sup Lee, Dr. Seung-Jae Lee
1226-T09-07	P00199	Experimental investigation and pressure pulsation analysis on the vortex rope in draft tube of Francis turbine	Prof. Linjiu Zhou , Mr. Wenzhe Kang, Dr. Huan Cheng, Dr. Quanwei Liang, Prof. Zhengwei Wang
1226-T09-08	P00201	Detached Eddy Simulation of the Cavitating Flow in a Large-Scale Vaned-Voluted Centrifugal Pump	Mr. Zhaoheng Lu , Prof. Ruofu Xiao, Prof. Ran Tao, Mr. Weichao Liu
1226-T09-09	P00202	Cavitation Prediction for the LUMEN LCH4 Pump	Mr. Christopher Groll , Mr. Tobias Traudt, Prof. Michael Oswald
1226-T09-10	P00219	Very-Large Eddy Simulation of Vortex-induced Cavitation in a Diesel Injector Nozzle	Mr. Wei Guan , Dr. Liang Zhang, Prof. Zhixia He
1226-T09-11	P00223	Transition of a cavitation vortex rope from cylindrical to elliptical mode in Francis turbine draft tube	Dr. Arthur Favre , Mr. Zhihao Liu, Mr. Mohammad Hossein Khozaei, Mr. Tatsuya Irie, Prof. Kazuyoshi Miyagawa
1226-T09-12	P00071	Measurement of the Influence of Sheet Cavitation on the Heat Generated in a Closed Loop Pumping System	Mr. DAVID BERMEO , Prof. XAVIER ESCALER, Prof. MATEVZ DULAR, Prof. RAFAEL RUIZ
1328-T09-13	P00096	EXPERIMENTAL CHARACTERIZATION OF THERMODYNAMIC EFFECT ON TWO-BLADED INDUCER CAVITATION INSTABILITIES	Mr. Youngkuk Yoon , Dr. Changkyoo Park, Prof. Seung Jin Song
1328-T09-14	P00119	Hydraulic Performances of Cryogenic Cavitating Orifices: May We Predict Them After Isothermal Testing?	Dr. Claudia Esposito , Prof. Johan Steelant, Prof. Maria Rosaria Vetrano
1328-T09-15	P00165	Characterisation of Cavitating Flow in Real-Size Optical Injectors for Additised and Renewable Diesel Blends	Dr. Ioannis Karathanassis , Dr. Joonsik Hwang, Dr. Phoivos Koukouvnis, Dr. Lyle Pickett, Dr. David Spivey, Prof. Manolis Gavaises
1328-T09-16	P00203	Experimental research of cavitation process adaptation for the desulphurization process for waste diesel oil	Dr. Joris Věžys , Mr. Justas Ciganas, Prof. Algimantas Bubulis, Dr. Arvydas Pauliukas
1328-T09-17	P00217	Cavitation In Stationary Components Of Centrifugal Pumps	Mr. Bruno Marroccia , Dr. Stefan Berten
1221-T10-01	P00028	Numerical investigation of tip vortex bursting and induced hull pressure pulses on a container vessel	Mr. Muye Ge , Dr. Urban Svennberg, Prof. Rickard E. Bensow
1221-T10-02	P00140	A STUDY ON NOISE AND VIBRATION BY CAVITATION USING FW-H MODEL	Mr. Hong-Sik HWANG , Prof. Kwang-Jun Paik, Dr. Gisu Song
1221-T10-03	P00082	Experimental Study on Reduction of Underwater Radiated Noise from Propeller Cavitation of Commercial Vessel	Mr. TAEGOO LEE , Dr. GISU SONG, Dr. KYUNGIUN LEE, Mr. YONGCHUL LEE, Dr. HYUN-JOE KIM, Dr. CHEOLSOO PARK
1221-T10-04	P00135	Experimental investigation of non-cavitating and unsteady cavitating flows around rigid and flexible hydrofoils	Mr. Yuxing Lin
1326-T10-05	P00138	An Experimental Study on Tip Vortex Cavitation and Induced Noise Characteristics of Hydrofoils	Mr. Su-Yong Shin , Mr. Sung-Gun Park, Mr. Ji-Woo Hong, Prof. Byoung-Kwon Ahn
1326-T10-06	P00023	Full-Scale Underwater Noise Trials of a Benchmark Research Vessel Retrofitted with PressurePores™ Technology	Dr. Batuhan Aktas
1326-T10-07	P00170	Comparison between water and liquid nitrogen pressure surge experiments to analyze cavitation induced noise growth	Mr. Sebastian Klein , Mr. Tobias Traudt, Prof. Michael Oswald
1326-T10-08	P00220	Characteristics of a Hydrofoil Flutter Under Cavitation Conditions	Mr. Tatsuya Irie , Mr. Shunsuke Nakai, Prof. Kazuyoshi Miyagawa, Dr. Chiharu Kawakita, Dr. Koichiro Shiraishi
1021-T11-01	P00070	Control of underwater cavity bubble behind a metallic sphere using a laser irradiation	Mr. KyuSeong Choi , Dr. Nayoung Kim, Mr. Guwon Seon, Prof. Wontae Hwang, Prof. Hyungmin Park
1021-T11-02	P00131	Delay and mitigation of cavitation of impeller using superhydrophilic surface	Mr. HONGSEOK CHOI , Mr. Seungtae Oh, Mr. Kyoungwan Song, Mr. Young-Su Ko, Prof. Youngsuk Nam, Prof. Choongyeop Lee, Prof. Hyungmin Park
1021-T11-03	P00195	Numerical investigation of the influence of vortex generator on ventilated cavitation of NACA0015 hydrofoil	Ms. LI xuemei , Mr. Sun Tiezhi
1021-T11-04	P00211	Fuel Temperature Effect on a Cavitation-Suppressing Injector Design for a Heavy-Duty Diesel Injector Operating with Gasoline	Dr. Roberto Torelli , Dr. Yuanjiang Pei, Dr. Michael Traver, Dr. Sibendu Som
1228-T12-01	P00072	Valve-like Torus-margo Pit of Gymnosperms Regulating Spread of Cavitation	Ms. Jooyoung Park , Mr. Sung Ho Park, Ms. Jeongeun Ryu, Prof. Sang Joon Lee
1228-T12-02	P00076	Aspect of Bubbles in Narrow Tube Imitating Root Canal Induced by Er:YAG Laser	Prof. Hitoshi Soyama , Dr. Yoshio Yahata, Prof. Masahiro Saito
1228-T12-03	P00087	Single microbubble collapse induced by pressure waves	Mr. Žiga Pandur , Dr. Darjan Podbevšek, Prof. Matevž Dular
1228-T12-04	P00108	SPH Modeling of Cavitation Impact on Soft Tissue Material	Ms. Jingyu Wang , Dr. Steffen Schmidt, Prof. Nikolaus Adams
1228-T12-05	P00120	Development of a Diffused Interface Approach for the Modelling of Ultrasound Interaction with Multi-Material Biological Tissue	Dr. Andreas Papoutsakis , Mr. Koukas Evangelos, Prof. Manolis Gavaises
1228-T12-06	P00139	Bubble Cloud Formation in Gelatin by the Backscattering of High-Intensity Focused Ultrasound from a Laser-Induced Bubble	Mr. Shuhei Nagano, Mr. Yi Chen, Dr. Toshiyuki Ogasawara , Prof. Hiroyuki Takahira
1327-T12-07	P00148	Laser-Induced Cavitation Near a Concave Surface	Dr. Tomaž Požar , Dr. Vid Agrež, Dr. ROK PETKOVSEK
1327-T12-08	P00172	Investigation of the Fluid Structure Interaction of Collapsing Bubbles in the Proximity of Soft Biological Tissue.	Dr. Andreas Papoutsakis , Mr. Armand Shams, Prof. Manolis Gavaises
1327-T12-09	P00173	Investigation of the Thermal Equilibrium Between Liquid and Gas Phases for Collapsing Bubbles Using a Multi-Material Diffused Interface Approach	Dr. Andreas Papoutsakis , Mr. Saeed Bidi, Prof. Manolis Gavaises
1327-T12-10	P00190	Behavior of a Sphere Caused by Pulsed Laser Induced Bubble simulating Stone Crushing with TUL	Prof. Yasuhiro Sugimoto , Mr. Shuma Obata
1327-T12-11	P00208	Optimal Control Of Encapsulated Microbubbles For Biomedicine	Ms. Fathia F. Arifi, Prof. Michael L. Calvisi

Presentation Code	Paper No.	PaperTitle	Authors
1023-T13-01	P00079	Estimation of Luminescence Intensity of Hydrodynamic Cavitation Considering Sound Velocity in the Cavitating Flow Field	Prof. Hitoshi Soyama
1023-T13-02	P00097	Predicting the Limits of Allowable Static Pressure for Upscaling Sonoluminescence: A Comparative Study for Acoustically-Driven Bubble and Laser-Induced Bubble	Dr. Kewen Peng, Prof. Frank G. F. Qin, Prof. Yiqun Zhang, Prof. Shouceng Tian
1023-T13-03	P00014	Sonochemistry in Light of Third Reactivity Paradigm	Prof. Sergey Nikitenko
1023-T13-04	P00145	Experimental Investigation of Cavitation in a Jet Regarding Process Optimization	Mr. Julius-A. Nöpel, Prof. Jochen Fröhlich, Dr. Frank Rüdiger
1128-T14-01	P00143	Cavitation Nuclei Detection and Classification in Interferometric Imaging by Deep Learning	Dr. Eric Ebert
1128-T14-02	P00147	Adaptive Visualization for Cavitation and Shock Waves Phenomena	Dr. Vid Agrež, Dr. Tomaž Požar, Dr. ROK PETKOVSEK
1225-T14-03	P00166	A High-Speed Limited Angle X-ray Tomography System for Optically Opaque Multi-Phase Flows	Mr. Nicholas A Lucido, Dr. Harish Ganesh, Dr. Steven L Ceccio
1225-T14-04	P00194	Recent progresses in the quantitative measurement of hydroxyl radicals produced by hydrodynamic cavitation	Dr. Darjan Podbevsek, Dr. Lionel Perrin, Dr. Gilles Ledoux, Dr. Damien Colombet, Prof. Frederic Ayela
1225-T14-05	P00214	Dual-camera mode visualization of cavitating flows	Dr. James Andrew Vermining, Dr. Bryce W. Pearce, Prof. Paul A. Brandner
1225-T14-06	P00188	Application of Hopkinson Bar in Measurement of Electric Spark Bubble Pressure Load	Dr. Chunlong Ma, Prof. Dongyan Shi, Dr. Dongze He, Dr. Hui Ma, Dr. Yuxin Gou
1225-T14-07	P00109	Cavitating Nozzle: Effect On Void Fraction And Droplet Size Distribution	Mr. Chris Callahan-Dudley, Prof. Simo A. Makharju

This is the preliminary program of the live discussion. Please note that there will be some updates with the paper title and the authors' information. We will notify you of the detailed program within few days on the official website (www.cav2021.org) and send you the individual information via e-mail. Should you have any inquiries, please contact us (secretariat@cav2021.org).