

PRELIMINARY PROGRAM

TUESDAY, 2 JULY 2024 - PARALLEL SESSIONS

A.1 Room Vivace 1		B.1 Room Vivace 2		C.1 Room Allegro 1	
11:15	FIV2024 - 0040 Asymptotic location of eigenfrequencies in long one-dimensional FSI systems V. Vedeneev, A. Podoprosvetova	11:15	FIV2024 - 0038 Dynamics of a flexible plate mounted behind a cylinder in airflow: Comparison between experiments and wake oscillator model S. Giri, V. Kartik, A. Agrawal, R. Bhardwaj	11:15	FIV2024 - 0045 Resonant blade vibrations caused by low-engine-order flowfield defects in jet engines and gas turbines F. Abdukhakimov, V. Filippenko, A. Glukhovskiy, O. Voronin, S. Chepiga, M. Erokhin, P. Makarov, M. Kolotnikov, V. Vedeneev
11:40	FIV2024 - 0058 A reduced-order model of 3-D extensible pipes conveying fluid: an approach via a modular based strategy D. O. Tomin, C. P. Pesce, R. M. M. Orsino	11:40	FIV2024 - 0122 Vortex shedding and flow periodicities in a non-uniform geometry tube array P. Mehrabian, N. Mureithi	11:40	FIV2024 - 0053 Mitigation of flange leakage due to thermal bowing and shock in a flare header using FSI methodology P. Diwakar
12:05	FIV2024 - 0119 Exploring the VIV phenomenon through a coupling between rigid-body and flexible modes A. L. L. Gontarski, G. R. Franzini, A. L. C. Fajarra, C. P. Pesce	12:05	FIV2024 - 0049 Experimental study of two tandem oscillating cylinders subjected to a turbulent crossflow P. B. Habowski, A. P. Petry, S. V. Möller, A. Mohany	12:05	FIV2024 - 0090 Flow-induced vibration caused by an unbalanced impeller on a centrifugal pump S. D. Jeldres, D. E. Casagrande, L. E. Ortiz-Vidal
A.2 Room Vivace 1		B.2 Room Vivace 2		C.2 Room Allegro 1	
14:10	FIV2024 - 0015 Parsimonious identification in the frequency-domain of experimental fluidelastic forces using a generic fractional integro-derivative model J. Antunes, P. Piteau, X. Delaune, R. Lagrange, D. Panunzio	14:10	FIV2024 - 0048 Numerical investigation of flow behavior around two tandem fixed cylinders with varied spacing ratios P. B. Habowski, A. P. Petry, S. V. Möller, A. Mohany	14:10	FIV2024 - 0009 Root cause analysis of flow and noise-induced-vibration in large vessels P. Diwakar, M. Jaouhari
14:35	FIV2024 - 0054 Analysis of the three-dimensional motion of flexible cylinders under vortex-induced vibrations using invariant manifolds G. J. Vernizzi, S. Lenci, G. R. Franzini	14:35	FIV2024 - 0047 Predicting fluid-elastic instability of tube bundle based on data driven and theoretical modeling F. Zhipeng	14:35	FIV2024 - 0018 Acoustic characterization of a test loop M. Kocher, P. Moussou, A. Joly, P. Piteau, R. Lagrange, D. Panunzio
15:00	FIV2024 - 0069 Sensitivity analysis of a mathematical reduced-order model for vortex-induced motions of multi-columns floating offshore wind turbines E. L. de Oliveira, G. A. Amaral, H. Suzuki, R. T. Gonçalves	15:00	FIV2024 - 0052 Numerical analysis of flow interactions within a bank of tubes with close space ratio R. F. Neumeiste, C. Reichel, A. P. Petry, S. V. Möller	15:00	FIV2024 - 0028 A simple approach for mitigating aerodynamic noise in high-speed train pantographs M. Suzuki, N. Okura, T. Muraio
15:25	FIV2024 - 0080 The effect of nonlinearity on the dynamics of structures H. Goyder	15:25	FIV2024 - 0085 Flapping dynamics of an inverted flag behind a cylinder in a uniform flow U. K. Patel, S. Giri, R. Bhardwaj	15:25	FIV2024 - 0089 Unsteady flow and its susceptibility to induce noise in various arrangements of cylinders in cross-flow M. Alziadeh, A. Mohany
15:50	FIV2024 - 0138 Experimental study of vortex-induced vibration of a circular cylinder surrounded by flow control rods varying draft M. L. L. da Silva, P. H. N. Silva, G. R. S. Assi	15:50	FIV2024 - 0123 Coherent structures and flow periodicities in a non-uniform tube array P. Mehrabian, N. Mureithi	15:50	FIV2024 - 0111 Investigation of a fuel bundle response to acoustic excitation T. Sawadogo, B. Smith
A.3 Room Vivace 1		B.3 Room Vivace 2		C.3 Room Allegro 1	
16:15	FIV2024 - 0039 Damping effects on flow-induced rotational vibrations of a rigid cylinder-plate A. K. Pandey, R. Bhardwaj	16:15	FIV2024 - 0004 Analysis of cylinder force spectrum dependency to flow pattern, in a rotated triangular tube bundle subjected to air-water cross-flow W. Benguigui, F. Beltran	16:15	FIV2024 - 0011 Investigation of the aeroelastic behavior of the blades of an offshore wind turbine using high-fidelity numerical simulations B. S. Carmo, G. Vijayakumar, M. A. Sprague
16:40	FIV2024 - 0042 Influence of structural damping in the rotational response of rounded rectangles under fluid-structure instabilities V. H. S. Peron, B. S. Carmo	16:40	FIV2024 - 0027 An experimental study about the random excitation force characteristics of low void fraction gas-liquid two-phase flow acting on tube bundle S. Nishida, Y. Komuro, H. Sugiura	16:40	FIV2024 - 0059 An evaluation of the accuracy of the actuator line method for unsteady aerodynamics E. Alva N., V. G. Kleine, A. V. G. Cavatieri
17:05	FIV2024 - 0064 Added damping for the vibrational response of horizontal pipes in multiphase flow conditions S.P.C. Belfroid, R. Bazuin, H. Pereboom, B. Luttkik, N. Gonzalez-Diez	17:05	FIV2024 - 0097 Exploring fluid-structure interaction in horizontal pipes transporting two-phase intermittent flow: an experimental investigation D. A. Neves, S. C. Vieira, J. R. Cenzi, M. S. Castro, A. T. Fabro	17:05	FIV2024 - 0120 Turbulence modeling application over the Imperial Front Wing standard case F. F. Buscariolo, J. C. L. Alves, S. J. Sherwin, G. R. S. Assi
17:30	FIV2024 - 0130 Damping estimation for a hybrid U-bend tube array in two-phase flow S. Darwish, N. Mureithi, A. Hadji, M. Cho	17:30	FIV2024 - 0105 Methods comparison for assessing subsea Xmas tree structural integrity regarding flow induced vibration phenomenon M. Constança, J. Pontes, N. Mangiavacchi	17:30	FIV2024 - 0113 Flight test campaign of a specific military helicopter with an external accessory to investigate abnormal vibrations on the horizontal empennage D. R. Ambrosio, E. A. Camargo, D. F. C. Zúñiga, M. Sartorato, V. C. de Sousa, E. L. Oliveira

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WEDNESDAY, 3 JULY 2024 - PARALLEL SESSIONS

A.4 Room Vivace 1	B.4 Room Vivace 2	C.4 Room Allegro 1
10:25 FIV2024 - 0036 A study of structural topology optimization applied to Fluid-Induced Vibration (FIV) problems L. O. Siqueira, K. E. S. Silva, E. C. N. Silva, R. Picelli	10:25 FIV2024 - 0003 Numerical and Experimental study to characterize two-phase flow-induced vibration of a single cylinder in a confined channel F. Beltran, W. Benguigui	10:25 FIV2024 - 0128 Drag forces reductions in wake flow with flexible foils J. D'Adamo, R. Godoy-Diana
14:35 FIV2024 - 0044 1-DoF Vortex-Induced Vibrations investigation of a circular cylinder at supercritical Reynolds regime M. de Oliveira, B. S. Carmo, J. R. Meneghini	14:35 FIV2024 - 0007 Exploring Two-Phase Cross-flow Using A Wire Mesh Sensor A. Chahine, G. Brillant, D. Vivaldi, G. Spina	14:35 FIV2024 - 0010 Passive mitigation and energy harvesting from flutter with rotary Nonlinear Energy Sink G. P. Araujo, J. A. I. da Silva, F. D. Marques
15:00 FIV2024 - 0062 Piezoelectric energy harvesting from VIV on cantilevered flexible cylinders with orthotropic bending stiffness: experimental investigation of varying flow effects L. S. Madi, G. J. Vernizzi, W. A. D. Filho, A. M. Kogishi, C. P. Pesce	15:00 FIV2024 - 0026 Digital image processing of an oil spill in a circulation channel for comparison with CFD simulations H. C. S. Júnior, R. Sbragio, M. R. Martins	15:00 FIV2024 - 0114 Flight test campaign of a specific military helicopter with an external accessory to investigate abnormal vibrations on the horizontal empennage D.A. Ambrosio, E.A. Camargo, V.C Sousa, D.F. Castillo Zúñiga, M. Sartorato, E.L. Oliveira
15:25 FIV2024 - 0121 Effects of mass ratio and restoring condition on the flow-induced vibration of floating cylinders with low aspect ratio A. L. L. Gontarski, I. R. F. Gomes, M. M. Medeiros, R. T. Gonçalves, R. T. Gonçalves, A. L. C. Fajarra	15:25 FIV2024 - 0139 Experimental study of two-phase flow-induced vibrations in a horizontal pipe with an internal restriction L. F.A. Alegria, L. E. Ortiz-Vidal, O. M.H. Rodriguez	15:25 FIV2024 - 0133 Three-dimensional transition of low-Reynolds-number flows past plunging airfoil and wing A. Gao, C. Cantwell, O. Son, S. Sherwin
A.5 Room Vivace 1	B.5 Room Vivace 2	C.5 Room Allegro 1
14:15 FIV2024 - 0076 An effective computational approach for modelling flows in FSI problems S. Yu	14:15 FIV2024 - 0022 Towards optimization of an anisotropic pressure fluctuation model for the simulation of turbulence-induced vibrations of fuel rods K. Zwijsen, A. M de Freitas, S. Tajfirooz, E. M. A. Frederix, F. Roelofs, A. H. van Zuijlen	14:15 FIV2024 - 0071 Aerodynamics and three-dimensional elastic deformation of a flapping wing with insect-inspired rigidity distribution C. García-Baena, C. Gutiérrez-Montes, J. I. Jiménez-González, R. Antier, B. Thiria, R. Godoy-Diana
14:35 FIV2024 - 0092 Coupling the structural solver Giraffe and the fluid dynamics solver OpenFOAM with preCICE R. Puraca, B. S. Carmo, A. G. Neto	14:35 FIV2024 - 0084 Numerical study of axial-flow-induced vibration for nuclear applications. J. Salachna	14:35 FIV2024 - 0088 A fluid-structure interaction model for soft robots for percutaneous interventions M. Kheiri, A. Hooshair
15:00 FIV2024 - 0110 Computation of fluid and rigid body interaction using a new immersed finite element method F. G. Junior, N. Mangiavacchi, S. McGinty, G. R. Anjos	15:00 FIV2024 - 0140 Simulation of nuclear fuel rod vibration and analysis of grid-to-rod wear fretting risk D. T. Spinel, J. Pacull, M. Quenehen, H. Hadzic, B. Painter, H. Marr, E. Rigaud	15:00 FIV2024 - 0112 Experimental study of perturbation growth mechanisms in a laminar jet flow L. Gareev, O. Ivanov, V. Trifonov, V. Vedeneev
15:25 FIV2024 - 0132 Toward a GPU-accelerated Fluid-Structure Interaction framework for high-fidelity simulations of Flow-Induced Vibrations in nuclear reactors S. Bistany, D. Reger, T. Nguyen, E. Merzari, J. Solberg	15:25	15:25 FIV2024 - 0141 Resonant modes of open cavities which are small relative to the incoming boundary layer F. O. Aguirre, V. B. Victorino, M. S. Mathias, M. A. F. Medeiros
A.6 Room Vivace 1	B.6 Room Vivace 2	C.6 Room Allegro 1
15:55 FIV2024 - 0002 A review of wall-proximity effects on flow-induced vibrations M. M. Alam	15:55 FIV2024 - 0014 Urans simulations of Vortex-Induced Vibrations of cylinders in cross-flow K. Zwijsen, M. M. M. D. Hussain, F. Roelofs	15:55 FIV2024 - 0063 Study on the fretting wear behavior of helical tube under turbulent excitation H. Qian, F. Zhipeng, C. Fengchun
14:35 FIV2024 - 0008 Fluid-Structure-Surface Interactions of Rigid Flat Plate Near a Free Surface H. Samsam-Khayani, B. Seyed-Aghazadeh	14:35 FIV2024 - 0072 Fluid-structure interaction analysis of a layered pipeline in a fluid catalytic cracking unit F. A. P. Morales, J. M. Vedovotto, A. A. C. Júnior, A. S. Neto, R. Serfaty	14:35 FIV2024 - 0056 Investigation of flow instabilities leading to non-synchronous vibration of compressor blades P. Šidlof, V. Vomácko, M. Štěpán, D. Šimurda, M. Mamula, J. Lepicovsky
15:00 FIV2024 - 0081 Modification of vortex-induced vibrations of an elastic cylinder near rigid plates O. Ivanov	15:00 FIV2024 - 0126 Bending-axial-torsional dynamics of pipes conveying fluid V. S. F. Maciel, G. Vernizzi, M. Kheiri, G. R. Franzini	15:00 FIV2024 - 0094 Experimental and numerical study of heat transfer in a counterflow heat exchanger with diffuser channels V. Trifonov, A. Reshmin, V. Lushchik, S. Teplodovskii
15:25 FIV2024 - 0091 Numerical simulation of flow-induced vibration of a cylinder near a finite-length plate A. Shishaeva, O. Ivanov	15:25 FIV2024 - 0131 Dynamics of a fluid-conveying pipe under the effect of Vortex-Induced Vibration L. L. H. Valdivia, J. P. J. Avila, R. P. Sanches	15:25 FIV2024 - 0118 Effect of flow-induced excitation characteristics on the fretting wear I77: K88 of steam generator tubes S. El Bouzidi, A. McLellan, B. St. Pierre, F. Guérout, M. Alziadeh

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THURSDAY, 4 JULY 2024 - PARALLEL SESSIONS

A.7 Room Vivace 1	B.7 Room Vivace 2	C.7 Room Allegro 1
<p>10:50 FIV2024 - 0005 Experimental investigation at moderate Reynolds numbers on the omnidirectional effectiveness of eight control rods as suppressors of vortex-induced vibration P. H. N. Silva, G. R. S. Assi</p>	<p>10:50 FIV2024 - 0031 CFD investigation of the turbulent pressure spectra and correlation lengths inside a coaxial cylinders channel P. Moussou, M. Kocher</p>	<p>10:50 FIV2024 - 0019 Wave-Assisted Flapping Foil Propulsion - Flow Physics and Scaling Laws from FSI Simulations H. Raut, J. Seo, R. Mittal</p>
<p>14:35 FIV2024 - 0012 Evaluation of a system comprised of a circular cylinder fitted with eight wake-control rods at different angles of attack I. A. Carvalho, G. R. S. Assi</p>	<p>14:35 FIV2024 - 0046 A coupled two-way fluid-structure interaction model for a hanging cantilevered tubular pipe aspirating fluid F. Daneshmand, T. Liaghat, M. P. Paidoussis</p>	<p>14:35 FIV2024 - 0083 Torsional aero-elastic oscillations of a circular cylinder attached to the end of an elastic beam. Y. Demchenko, O. Ivanov, A. Zubkov</p>
<p>15:00 FIV2024 - 0055 Drag control in the backward-facing step problem using parametric optimization L. O. Siqueira, L. G. B. Vieira, J. P. R. Júnior, E. C. N. Silva, J. R. Meneghini, G. R. S. Assi, R. Picelli</p>	<p>15:00 FIV2024 - 0050 Vibration of a pipe with rotationally restrained ends conveying two-phase flow X. Wang, B. Wang, H. Jiao, B. Sun, G. Fu, J. Su</p>	<p>15:00 FIV2024 - 0093 Description of the fluid-structure interaction problem for flutter of a rectangular plate by using the constrained formulation K. Hara</p>
<p>15:25 FIV2024 - 0075 Active control of flow past a square cylinder using synthetic jet array V. Mittal, V. Arumuru</p>	<p>15:25 FIV2024 - 0101 Submerged cantilevered flexible pipe discharging flow in post-critical dynamic regime: an experimental-numerical assessment W. A. D. Filho, R. M. M. Orsino, G. J. Vernizzi, G. R. Franzini, C. P. Pesce</p>	<p>15:25 FIV2024 - 0100 Numerical investigation of the nonclassical transition to divergence in a three-dimensional non-rotating and rotating wing A. Chicherina, V. Vedenev</p>
<p>15:50 FIV2024 - 0096 The effect of porosity on the Flow-Induced Vibration of a flat plate M. M. Cicolin, D. W. Carlson, B. Ganapathisubramani</p>	<p>15:50 FIV2024 - 0107 Coupled fluid-structure simulations of a cantilever beam in axial water flow D. Vivaldi</p>	<p>15:50 FIV2024 - 0104 Resolvent analysis for aerofoil response to optimal gusts H. Mak, O. Marquet, L. Lesshafft</p>

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