

CONTENTS

	page
ADNANE E., LALAOUA A., BOUABDALLAH A.: An Experimental Study of the Laminar-Turbulent Transition in a Tilted Taylor-Couette System Subject to Free Surface Effect	1
BODNÁR T., FRAUNIÉ P.: Numerical Study of Stratification Effects on Local Wind Flow and Pollution Dispersion	11
BOURABAA A., SAIGHI M., SALHI K., HAMIDAT A., MOUNDJI M.M.: One-Dimensional Temperature Distribution of Condensing Annular Fins of Different Profiles	17
CÉZOVÁ E., GULÍKOVÁ E.: Statistical Analysis of Meteorological Data	27
CHASHECHKIN Y.D.: Dynamics and Structure of Fluid Flows: Observations and Calculations	33
DAIMALLAH A., LEBBI M., BOUABDALLAH A.: 3D-Numerical Simulation of the Effect of Radial Gap on the Stability of Taylor-Couette Flow	41
DEURING P., EYMARD E.: Stability of Finite Element - Finite Volume Discretizations of Convection - Diffusion - Reaction Equations	47
DUCOMET B., NEČASOVÁ Š.: On the Problem of Singular Limits in a Model of Radiative Flow	53
FEIREISL E., NAMLYEYEVA Y., NEČASOVÁ Š.: Some Notes About the Homogenization Problem for the Navier-Stokes Equations	61
FÜRST J., ISLAM M., PŘÍHODA J., WOOD D.: Towards Pressure Gradient Sensitive Transitional k - k_L - ω Model: The Natural Transition for Low Re Airfoils	65
HYHLÍK T.: Dynamic Mode Decomposition of Synthetic Jet Flow at $Re = 329$ and $S = 19.7$	71
ISOZ M.: Spreading Rivulet with Decrease in Flow Rate Induced by Dissipation in Underlying Wetting Film	77

KESLEROVÁ R., KOZEL K.: Numerical Simulation of Viscous and Viscoelastic Fluids Flow	81
KHARCHI R., IMESSAD K.: Passive Cooling of Housing by Natural Ventilation	87
KOŽÍŠEK M., MARTINEZ J., FÜRST J., PŘÍHODA J., DOERFFER P.: Implementation of $k-k_L-\omega$ Turbulence Model for Compressible Transitional Flow into OpenFoam	93
LAKHLILI J., GALUSINSKI C., GOLAY F.: Discrete Duality Finite Volume Applied to Soil Erosion	99
LALAOUA A.: Effect of a Pulsating Radial Motion of the Outer Cylinder on the Onset of Taylor Vortices in Finite - Length Geometry	105
LECHEHEB S., BOUABDALLAH A., TIGRINE Z., YAHYI F.: Influence of the Angular Effect on the Heat Transfer Process in Graetz Heat Exchanger	117
MAHLOUL M., MAHAMDIA A., SOBOLIK V.: Transition to Turbulence and Relaminarization Phenomena in the Flow Between Two Rotating Spheres	127
MAKHOUL M., BELTRAME P., JOELSON M.: Particle Drag Force in a Periodic Channel: Wall Effects	137
MERAH A., MOKHTARI F., BOUABDALLAH A., ADNANE M.: 3D Numerical Study of Magnetohydrodynamic Instability in Liquid Metal Taylor-Couette Flow	145
NOVÝ A., ŠAFAŘÍK P., JÍCHA D., HAJŠMAN M.: On Evaluation of Steam Flow Parameters from Experimental or Numerical Data Distribution on Traverse Plane	151
PAWŁOWSKA A., OBAŁA N.: The Influence of Nozzle Contraction Upon the Near Flow Field for Axisymmetric Free Jet	159
PREVENSLIK T.: The Bernoulli Equation in Nanochannels	167
SVÁČEK P., HORÁČEK J.: On Application of Finite Element Method for Approximation of 3D Flow Problems	175
ŠIDLOF P.: Large Eddy Simulation of Airflow in Human Vocal Folds	183

ŠÍSTEK J.:	193
A Parallel Finite Element Solver for Unsteady Incompressible Navier-Stokes Equations	
TESAŘ V.:	199
Mechanically Modulated Nozzles	
TESAŘ V., ŠONSKÝ J.:	221
Plasma-Discharge Control in Fluidics	
URUBA V.:	237
(An)Isotropy Analysis of Turbulence	
VALÁŠEK J., HORÁČEK J., SVÁČEK P.:	245
On Numerical Approximation of Fluid-Structure Interactions for Interaction of Air Flow with a Model of Vocal Folds	
VARNHORN W.:	255
Time Delay and Lagrangian Differences for Viscous Incompressible Fluid Flow	
WRÓBLEWSKA-KAMIŃSKA A.:	261
Non-Newtonian Fluids with Nonstandard Rheology - Existence of Solutions	
YAHİ F., HAMNOUNE Y., LECHEHEB S., BOUABDALLAH A.:	273
Experimental Investigation of the Free Surface Effect on the Conical Taylor - Couette Flow System	