

# **EFM12 – Experimental Fluid Mechanics 2012**

**EPJ Web of Conferences Volume 45 (2013)**

**Hradec Kralove, Czech Republic  
20-23 November 2012**

**ISBN: 978-1-63266-191-3**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

This work is licensed under a Creative Commons Attribution license:  
<http://creativecommons.org/licenses/by/2.0/>

**You are free to:**

**Share** – copy and redistribute the material in any medium or format.

**Adapt** – remix, transform, and build upon the material for any purpose, even commercial.

The licensor cannot revoke these freedoms as long as you follow the license terms.

**Under the following terms:**

You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. The copyright is retained by the corresponding authors.

Printed by Curran Associates, Inc. (2014)

For additional information, please contact EDP Sciences – Web of Conferences  
at the address below.

EDP Sciences – Web of Conferences  
17, Avenue du Hoggar  
Parc d'Activité de Courtabœuf  
BP 112  
F-91944 Les Ulis Cedex A  
France

Phone: +33 (0) 1 69 18 75 75

Fax: +33 (0) 1 69 28 84 91

[contact@webofconferences.org](mailto:contact@webofconferences.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

<b>Check Accuracy of Oscillation Frequency of Flow Inside a Cavity</b> .....	1
<i>Kryštof P., Petříková M.</i>	
<b>Experimental Investigation of a Synthetic Jet Array in a Laminar Channel Flow</b> .....	5
<i>Dancová P., Trávníček Z., Vít T.</i>	
<b>PIV and CTA Measurement of Constant Area Mixing in Subsonic Air Ejector</b> .....	16
<i>Dvorák V., Novotný P., Dancová P., Jašíková D.</i>	
<b>Error Analysis of Supersonic Air-to-Air Ejector Schlieren Pictures</b> .....	22
<i>Kolár J.</i>	
<b>Lagrangian Velocity Distributions in Thermal Counterflow of Superfluid <sup>4</sup>He</b> .....	28
<i>La Mantia M., Duda D., Rotter M., Skrbek L.</i>	
<b>CFD Analysis of Turbulent Cross-flow in a Staggered Tube Bundle Equipped with Grooved Cylinders</b> .....	32
<i>Ladjedel O., Adjlout L., Yahiaoui T., Imine O.</i>	
<b>Investigation of Vapor Film Motion Regularities at Boiling Liquids</b> .....	38
<i>Agaltsov A., Zeigarnik Y. U.</i>	
<b>Active Control of Flow around NACA 0015 Airfoil by Using DBD Plasma Actuator</b> .....	42
<i>Akansu Y. E., Karakaya F., Sanlısoy A.</i>	
<b>CFD Simulation and Experimental Analysis of Erosion in a Slurry Tank Test Rig</b> .....	49
<i>Azimian Mehdi, Bart Hans-Jörg</i>	
<b>Aerodynamic Optimization of a Winglet Design</b> .....	57
<i>Belferhat S., Meftah S. M. A., Yahiaoui T., Imine B.</i>	
<b>Analysis of Fiber Deposition using Automatic Image Processing Method</b> .....	61
<i>Belka M., Lizal F., Jedelský J., Jicha M.</i>	
<b>Experimental Studies for the Characterization of the Mixing Processes in Negative Buoyant Jets</b> .....	65
<i>Besalduch L. A., Badas M. G., Ferrari S., Querzoli G.</i>	
<b>On Application of EARSM Turbulence Model for Simulation of Flow Field behind Rack Station</b> .....	74
<i>Beták V., Sváček P., Novotný J., Fürst J., Fort J.</i>	
<b>Measuring of Filtration Efficiency of Nonwoven Textiles in Volume from Scattered Light by Seeding Particles</b> .....	78
<i>Bilek P., Sidlof P.</i>	
<b>Numerical Simulation of SNCR Technology with Simplified Chemical Kinetics Model</b> .....	85
<i>Blejchar T., Dolníčková D.</i>	
<b>Active Control of the Jet in Coaxial Arrangement</b> .....	90
<i>Broucková Z., Trávníček Z., Šafarik P.</i>	
<b>Simulation of Dynamics of System with Hydraulic Lines and Linear Hydraulic Motor with Mass Load</b> .....	96
<i>Burecek A., Hrušík L., Vašina M.</i>	
<b>Permeability of Mono- and Bi-dispersed Porous Media</b> .....	101
<i>Byon C., Kim S. J.</i>	
<b>Effects of Insulation Parameters on the Energy Consumption in Domestic Ovens and the Most Efficient Insulation Design</b> .....	107
<i>Sari T., Celik A., Isik O., Temel O., Onbasioglu S. U.</i>	
<b>Pool Boiling on Rectangular Fins with Tunnel-pore Structure</b> .....	115
<i>Pastuszko R.</i>	
<b>Flow Control in Axial Fan Inlet Guide Vanes by Synthetic Jets</b> .....	120
<i>Cyrus V., Trávníček Z., Wurst P., Kordík J.</i>	
<b>Comparison of Flow Characteristics of Different Sphere Geometries Under the Free Surface Effect</b> .....	126
<i>Ozgoren M., Dogan S., Okbaz A., Aksoy M. H., Sahin B., Akilli H.</i>	
<b>In-situ Modelisation of a Greenhouse Climate Including Sensible Heat, Water Vapour and CO<sub>2</sub> Balances</b> .....	136
<i>Draoui B., Bounaama F., Boulard T., Bibi-Triki N.</i>	
<b>Re-evaluation of Experimental Data on the Second Virial Coefficient for Steam and Development of Its Analytical Representation As a Function of the Internal Energy</b> .....	141
<i>Duška M., Hrubý J.</i>	
<b>Velocity Profiles in Idealized Model of Human Respiratory Tract</b> .....	151
<i>Elcner J., Jedelský J., Lizal F., Jicha M.</i>	
<b>An Experimental Study on the Near Flow Field Characteristics of Non-circular Jets</b> .....	155
<i>Yukselenturk Y., Erdem D.</i>	
<b>The Application of EIS and PIV Methods to the Measurement of Aerated Flow</b> .....	161
<i>Fejfarová M.</i>	
<b>A Study on Forces Acting on a Flapping Wing</b> .....	166
<i>Vuruskan A., Fenercioglu L., Cetiner O.</i>	
<b>Active Control of Flow Around a Square Prism by Slot Jet Injection</b> .....	174
<i>Firat E., Akansu Y. E., Hacıaliogullari M.</i>	
<b>Two-phase Distribution in the Vertical Flow Line of a Domestic Wet Central Heating System</b> .....	181
<i>Fsadni A.-M., Ge Y. T.</i>	
<b>Large Eddy Simulation of Stratified Flows Over Structures</b> .....	187
<i>Fuka V., Brechler J.</i>	

<b>Comparison of Several Models of the Laminar/Turbulent Transition .....</b>	<b>191</b>
<i>Fürst J., Straka P., Prhoda J., Šimurda D.</i>	
<b>Design and Numerical Simulation of the Heat Exchanger for Heat Recovery System with Melting Furnaces for Melting Secondary a Uminums .....</b>	<b>197</b>
<i>Gavlas S., Lenhard R., Jandacka J.</i>	
<b>Review of Background Oriented Schlieren and Development for Ballistic Range Applications .....</b>	<b>201</b>
<i>Gojani Ardian B., Kamishi Burim, Obayashi Shigeru</i>	
<b>Flow Control Behind a Circular Cylinder Via a Porous Cylinder in Deep Water .....</b>	<b>209</b>
<i>Gozmen B., Firat E., Akilli H., Sahin B.</i>	
<b>Measurement of Influence Geometry of Floor Convector on His Performance .....</b>	<b>219</b>
<i>Greššák T., Kapjor A., Hužvár J.</i>	
<b>Numerical Simulation of Water Hammer in Low Pressurized Pipe: Comparison of Simhydraulics and Lax-wendroff Method with Experiment .....</b>	<b>223</b>
<i>Himr D.</i>	
<b>Preliminary Experimental Investigation of Boundary Layer in Decelerating Flow .....</b>	<b>227</b>
<i>Hladík O., Jonáš P., Prhoda J.</i>	
<b>Lorentz Forces Caused by Rotating Magnetic Field .....</b>	<b>234</b>
<i>Horáková K., Frana K.</i>	
<b>Treffitz Method for Solving Two-dimensional Temperature Field of Boiling Fluid Flowing Along the Minichannel .....</b>	<b>238</b>
<i>Hozejowska S., Piasecka M., Hozejowski L.</i>	
<b>Evaluation of Bulk Modulus of Oil System with Hydraulic Line .....</b>	<b>245</b>
<i>Hružík L., Vašina M., Burecek A.</i>	
<b>Numerical Simulation of 2D Transonic Flows in DCA 8% Cascade .....</b>	<b>251</b>
<i>Huml Jaroslav, Kozel Karel, Prhoda Jaromír</i>	
<b>Visualization and Modal Decomposition of Vortex Street Behind Circular Cylinder .....</b>	<b>255</b>
<i>Hyhlík T., Železný P., Cížek J.</i>	
<b>Investigation of Different Wall Profiles on Energy Consumption and Baking Time in Domestic Ovens .....</b>	<b>259</b>
<i>Isik O., Temel O., Celik A., Sari T., Onbasioglu S. U.</i>	
<b>Modelling on Cavitation in a Diffuser with Vortex Generator .....</b>	<b>268</b>
<i>Jablonská J.</i>	
<b>Use of LHP for Cooling Power Electronic Components .....</b>	<b>274</b>
<i>Smitka M., Malcho M., Nemeč P., Kolková Z.</i>	
<b>Rotary Slanted Single Wire CTA – A Useful Tool for 3d Flows Investigations .....</b>	<b>278</b>
<i>Jonáš P.</i>	
<b>Numerical Simulation of Indirect Heating of Water by Heat Transfer Surface Area Located at the Heat Source .....</b>	<b>284</b>
<i>Kaduchová K., Lenhard R., Gavlas S., Jandacka J.</i>	
<b>The Impact of the Orifice Plate Deformation on the Differential Pressure Value .....</b>	<b>288</b>
<i>Kiš R., Janovcová M., Malcho M., Jandacka J.</i>	
<b>Disintegration of Materials by Cavitating Microjets .....</b>	<b>292</b>
<i>Knížat B., Mlkvik M., Olšiak R.</i>	
<b>Numerical Modelling of the Flow in the Annular Multi-recess Hydrostatic Thrust Bearing Using CFD Methods .....</b>	<b>296</b>
<i>Kozdera M., Drbáková S.</i>	
<b>Sprinkled Heat Exchangers in Evaporation Mode .....</b>	<b>302</b>
<i>Kracik P., Snajdarek L., Pospisil J.</i>	
<b>Quadrant Analysis of Turbulent Pollution Flux Above the Modelled Street Intersection .....</b>	<b>308</b>
<i>Kukacka L., Nosek Š., Kellnerová R., Jurčáková K., Janour Z.</i>	
<b>Numerical Simulation of the Flow Around Diffusible Barriers .....</b>	<b>316</b>
<i>Kyncl Martin, Pelant Jaroslav</i>	
<b>LDA Measurements and Turbulence Spectral Analysis in an Agitated Vessel .....</b>	<b>325</b>
<i>Kysela Bohuš, Konfršt Jirí, Chára Zdenek</i>	
<b>Investigation of the Thermohydraulic Systems in MATLAB &amp; Simulink Using Developed Library .....</b>	<b>331</b>
<i>Cibera V., Lavicka D.</i>	
<b>Fin Distance Effect at Tube-Fin Heat Exchanger .....</b>	<b>335</b>
<i>Lemfeld F., Muller M., Frana K.</i>	
<b>Staged the Conversion of Carbon Dioxide in the Simulator .....</b>	<b>339</b>
<i>Lenhard R., Vantúch M., Malcho M.</i>	
<b>CFD Comparison with Centrifugal Compressor Measurements on a Wide Operating Range .....</b>	<b>343</b>
<i>Le Sausse P., Fabrie P., Arnou D., Clunet F.</i>	
<b>Application of Positron Emission Tomography to Aerosol Transport Research in a Model of Human Lungs .....</b>	<b>351</b>
<i>Lizal F., Jedelsky J., Adam J., Belka M., Jicha M.</i>	
<b>Flow Field Mapping in Data Rack Model .....</b>	<b>355</b>
<i>Manoch L., Matecha J., Pohan P.</i>	
<b>Numerical Simulation of Flow and Determination of Aerodynamic Forces in the Balanced Control Valve .....</b>	<b>360</b>
<i>Matas R., Straka F., Hoznedl M.</i>	
<b>Comparison of Results from Experimental Testing of Three Variants of Turbine Stage with Modern 3D Blades .....</b>	<b>366</b>
<i>Milcak P., Zitek P., Hoznedl M.</i>	
<b>An Application of Image Analysis to Hypersonic Flows .....</b>	<b>370</b>
<i>Mirzaei M., Belan M.</i>	
<b>Determine of Velocity Field with PIV and CFD During the Flow Around of Bridge Piers .....</b>	<b>375</b>
<i>Mistrová I., Picka D.</i>	

<b>Testing Thermal Properties of the Cooling Device with Heat Pipes</b> .....	382
<i>Nemec P., Caja A., Malcho M.</i>	
<b>Experimental Investigations and Numerical Simulations of Methane Cup-burner Flame</b> .....	386
<i>Bitala P., Kozubková M., Kaderábek P., Nevrlý V., Dlabka J., Kozubek E., Štěpánek O., Bojko M., Kubát P., Zelinger Z.</i>	
<b>Meshfree Methods for Computational Fluid Dynamics</b> .....	391
<i>Niedoba P., Cermák L., Jicha M.</i>	
<b>Laser-optical and Numerical Research of the Flow Inside the Lubricating Gap of a Journal Bearing Model</b> .....	397
<i>Nobis M., Stücke P., Schmidt M., Riedel M.</i>	
<b>Neutrally Stratified Flow Modelling Over Complex Terrain at Meso-scale: Open-cut Coal Mine Study</b> .....	403
<i>Nosek S., Janour Z., Jurcakova K., Kellnerova R., Kukacka L.</i>	
<b>Effect of High Porosity Screen on the Near Wake of a Circular Cylinder</b> .....	409
<i>Ozkan G. M., Akilli H., Sahin B.</i>	
<b>Capture Efficiency Measurement of Pollutants Over a Workbench with the Reinforced Slot Exhaust System</b> .....	414
<i>Pech O., Pavelek M.</i>	
<b>The Temperature Fields Measurement of Air in the Car Cabin by Infrared Camera</b> .....	418
<i>Pešek M.</i>	
<b>Strangely Behaving Fluidic Oscillator</b> .....	424
<i>Tesar V., Peszynski K.</i>	
<b>Efficiency of Active Flow Control by a Synthetic Jet Around a Hump</b> .....	430
<i>Pick P., Skála V., Matejka M.</i>	
<b>Homogeneous Droplet Nucleation Modeled Using the Gradient Theory Combined with the PC-SAFT Equation of State</b> .....	434
<i>Planková Barbora, Hrubý Jan, Vlnš Václav</i>	
<b>Coupling of the Models of Human Physiology and Thermal Comfort</b> .....	442
<i>Pokorny J., Jicha M.</i>	
<b>Parametric Study of Vortex Train Generated by Plasma Actuator in Dependency on Input Voltage Waveform</b> .....	446
<i>Procházka P., Uruba V.</i>	
<b>Characterization of Particle Deposition in a Lung Model Using an Individual Path</b> .....	451
<i>Tena A. M., Casan P., Fernández J., Ferrera C., Marcos A.</i>	
<b>Numerical Simulations of the Flow with the Prescribed Displacement of the Airfoil and Comparison with Experiment</b> .....	456
<i>Ridký V., Šidlof P., Vlcek V.</i>	
<b>Numerical Investigation of Cavitation Flow in Journal Bearing Geometry</b> .....	462
<i>Riedel M., Schmidt M., Stücke P.</i>	
<b>Experiments in a Combined Up Stream Downstream Slug Flow</b> .....	466
<i>Sánchez-Silva F., Carvajal-Mariscal I., Toledo-Velázquez M., Libreros D., Toledo-Velázquez M., Saidani-Scott H.</i>	
<b>The Study of Thermodynamic Properties and Transport Properties of Multicomponent Systems with Chemical Reactions</b> .....	474
<i>Shmelkov Y., Samujlov E.</i>	
<b>The Measurement of Wall Shear Stress in the Low-Viscosity Liquids</b> .....	478
<i>Schmirler M., Matecha J., Netrebská H., Ježek J., Adamec J.</i>	
<b>Computational Aeroacoustics of Human Phonation</b> .....	485
<i>Šidlof P., Zörner S.</i>	
<b>Experimental Investigation of the Compressor Cascade under an Active Flow Control</b> .....	493
<i>Trávníček Z., Cyrus V., Šimurda D., Luxa M., Lukác J., Kordík J.</i>	
<b>Prismatic Blade Measuring on a Wind Tunnel</b> .....	499
<i>Epikaridis P., Sedlak K., Stech J.</i>	
<b>Numerical Simulation of Radial Compressor Stage</b> .....	503
<i>Syka T., Lunáček O.</i>	
<b>Wall Shear Stress Induced by Taylor Bubbles in Inclined Flow Channels</b> .....	507
<i>Tihon J., Penkavová V., Vejražka J.</i>	
<b>Numerical Experiments for Turbulent Flows</b> .....	513
<i>Trefilík Jirí, Kozel Karel, Příhoda Jaromír</i>	
<b>Experimental and Numerical Research of a Novel Combustion Chamber for Small Gas Turbine Engines</b> .....	519
<i>Tuma J., Kubata J., Betak V., Hybl R.</i>	
<b>Oscillations of Bubbles Attached to a Capillary: Case of Pure Liquid</b> .....	524
<i>Vejražka J., Vobecká L., Tihon J.</i>	
<b>Combined Study of Evaporation from Liquid Surface by Background Oriented Schlieren, Infrared Thermal Imaging and Numerical Simulation</b> .....	528
<i>Vinnichenko N. A., Uvarov A. V., Plaksina Yu. Yu.</i>	
<b>Design of an Experimental Apparatus for Measurement of the Surface Tension of Metastable Fluids</b> .....	538
<i>Vlnš V., Hrubý J., Hykl J., Blaha J., Šmíd B.</i>	
<b>Modification of Shape Oscillations of an Attached Bubble by Surfactants</b> .....	543
<i>Vobecká L., Vejražka J., Tihon J.</i>	
<b>Prediction of Air Temperature in the Aircraft Cabin Under Different Operational Conditions</b> .....	547
<i>Volavý F., Fišer J., Nöske I.</i>	
<b>Perturbation Analysis of “k—<math>\omega</math>” and “k—<math>\epsilon</math>” Turbulent Models. Wall Functions</b> .....	553
<i>Vostruha Karel, Pelant Jaroslav</i>	
<b>The Interaction Vortex Flow Around Two Bluff Cylinders</b> .....	558
<i>Yokoi Y., Hirao K.</i>	

<b>Flow Visualization of a Scramjet Inlet – Isolator Model in Supersonic Flow</b> .....	568
<i>Seckin S., Yuceil K. B.</i>	
<b>Investigation of Absorption Cooling Application Powered by Solar Energy in the South Coast Region of Turkey</b> .....	576
<i>Babayigit O., Aksoy M. H., Ozgoren M., Solmaz O.</i>	
<b>Simulation of Multiphase Flow in Hydrocyclone</b> .....	583
<i>Rudolf P.</i>	
<b>The Influence of Air Duct Geometry on Air Jet Direction in Aircraft Cabin Ventilated by Mixing Ventilation.</b> .....	591
<i>Fišer J., Jícha M.</i>	
<b>Simulation of Flow around Isolated Helicopter Fuselage</b> .....	597
<i>Kusyumov A. N., Mikhailov S. A., Romanova E. V., Garipov A. O., Nikolaev E. I., Barakos G.</i>	
<b>Spatiotemporal Dynamic of Two-dimensional Core Annular Flow in Square Channel</b> .....	604
<i>Latrache N., Nsom B., Decruppe J-P.</i>	
<b>Water Temperature Effect on Upward Air-water Flow in a Vertical Pipe: Local Measurements Database Using Four-sensor Conductivity Probes and LDA</b> .....	612
<i>Monrós-Andreu G., Chiva S., Martínez-Cuenca R., Torró S., Juliá J. E., Hernández L., Mondragón R.</i>	
<b>Experimental Performance Investigation of Photovoltaic/Thermal (PV–T) System</b> .....	624
<i>Ozgoren M., Aksoy M. H., Bakir C., Dogan S.</i>	
<b>Experimental Results for an Experimental Condensation Heat Exchanger with a Spiral Minichannel Tube. Comparison to Numerical Simulations</b> .....	630
<i>Peukert P., Hrubý J.</i>	
<b>Dynamics of Flow Behind Backward-facing Step in a Narrow Channel</b> .....	636
<i>Uruba V.</i>	
<b>Study Regarding the Influence of the Crimping Angle on the Performances of the Heat Exchangers</b> .....	644
<i>Irimie O., Bode F., Opruta D.</i>	
<b>Stereoscopic Reconstruction of 3D PIV Data in T-Junction with Circular Profile</b> .....	650
<i>Kotek M., Pavlík D., Kopecký V., Jašíková D.</i>	
<b>Evaluation of Material Properties Determining the Moisture Transfer</b> .....	654
<i>Vestfálova M.</i>	
<b>Characteristics of the Pipe Junction with 2.4 Cross-section Area Ratio for the Case of the Flow Division</b> .....	658
<i>Štigler J., Šperka O.</i>	
<b>The Influence of the Sleeve's Orifices Geometric Patterns on the Fluid Flow Through a Hydraulic Resistance</b> .....	664
<i>Sfarlea I., Bode F., Opruta D.</i>	
<b>Velocity and Temperature Decay in Turbulent Flow behind Parallel Heat Sources</b> .....	668
<i>Antoš P., Uruba V.</i>	
<b>Investigation of Viscous Fluid Flow in an Eccentrically Deposited Annulus Using CFD Methods</b> .....	672
<i>Bojko M., Kozdera M., Kozubkova M.</i>	
<b>Experimental Study of Injection Characteristics of a Multi-hole Port Injector on Various Fuel Injection Pressures and Temperatures</b> .....	678
<i>Movahednejad E., Ommi F., Nekofar K.</i>	
<b>An Experimental Setup with Ultrasonic Gas Analyzers and Real Time Analysis of the Composition of a Binary Gas Mixture</b> .....	683
<i>Vacek V., Vitek M., Doubek M.</i>	
<b>Experimental Investigation in Fluid Mechanics – Its Role, Problems and Tasks</b> .....	687
<i>Šafarik P.</i>	
<b>On Investigating the Flow Through an Axisymmetric Channel with Sudden Changes in Geometry</b> .....	694
<i>Giurgea C., Bode F., Nascutiu L., Banyai D., Marcu L.</i>	
<b>Identification of Collapse Patterns of Cavitation Bubbles Close to a Solid Wall</b> .....	700
<i>Müller M., Hujer J., Kotek M., Zima P.</i>	
<b>Numerical Solution of Compressible Steady Flows around the NACA 0012 Airfoil</b> .....	704
<i>Kryštufek P., Kozel K.</i>	
<b>Measurement of Moisture Transport in the Membrane–Based Enthalpy Exchanger</b> .....	708
<i>Novotný P., Nguyen V., Dvorák V.</i>	
<b>Possibilities of Using Carbon Dioxide As Fillers for Heat Pipe to Obtain Low-potential Geothermal Energy</b> .....	712
<i>Kasanický M., Gavlas S., Vantúch M., Malcho M.</i>	
<b>Laser Ablation at the Hydrodynamic Regime</b> .....	717
<i>Gojani Ardian B.</i>	
<b>The Structural Design of the Experimental Equipment for Unconventional Heating Water Using Heat Transfer Surfaces Located in the Heat Source</b> .....	723
<i>Kaduchová K., Lenhard R., Gavlas S., Jandacka J.</i>	
<b>The Impacts of Cooling Construction on the Ability Distract the Heat of Condensation Part of the Heat Pipe</b> .....	727
<i>Caja A., Nemeč P., Malcho M., Gavlas S.</i>	
<b>Experimental Investigations of the Performance of a Solar Air Collector with Latent Heat Thermal Storage Integrated with the Solar Absorber</b> .....	731
<i>Charvat P., Pech O., Hejčík J.</i>	
<b>On the Use of Hypodermic Needles in Electrospray</b> .....	735
<i>Rebollo-Muñoz N., Montanero J. M., Gañán-Calvo A. M.</i>	
<b>Flow Pulsation in the Near-wall Layer of Impinging Jets</b> .....	740
<i>Tesar V.</i>	
<b>The Influence of the Wall Temperature on the Flow from the Floor Convect (Experimental Results)</b> .....	752
<i>Muller M., Frana K., Kotek M., Dancova P.</i>	

<b>Comparison of Experimental Study of Concentration Measurement Using pLIF and EIT.....</b>	<b>756</b>
<i>Jasikova D., Kotek M., Krcmarik D., Kopecky V.</i>	
<b>On the Quadrant Analysis of the Flow in the Street Canyon .....</b>	<b>760</b>
<i>Kellnerová R., Fuka V., Kukacka L., Uruba V., Janour Z.</i>	
<b>Simulation of Deposition the Corrosion Waste in a Water Distribution System .....</b>	<b>765</b>
<i>Jeleniková Ivana, Šikula Ondrej, Perácková Jana</i>	
<b>Author Index</b>	