Measurement of Flow Characteristics in a Model of Aneurysm by PIV and FLIF Method

Jan Kolínský, Ludmila Nováková, Josef Adamec
Faculty of Mechanical Engineering, Czech Technical University in Prague. Technická 4, 166 07 Prague. Czech Republic.
E-mail: jan.kolinsky@fs.cvut.cz

The paper describes the flow measurement in an aneurysm model by PIV (Particle Image Velocimetry) and PLIF (Planar Laser Induced Fluorescence) method. The velocity field and the concentration were determined for four steady and one unsteady flow regimes.
The area of the main flow and the area of liquid circulation in the region of the bulge were defined on the basis of velocity field measurement. Mean concentration of dye was evaluated in three areas: the entry to the model, the bulge of aneurysm and the outlet of the model. Concentration in course of time and residence time of dye are discussed on the dependance of unsteady flow.

Keywords: Aneurysm, PIV method. PLIF method, flow field, concentration measurement,

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