



DOCTORAL RESEARCH TOPIC:

Numerical investigation of time dependent fluid flows in elastic channels

RESEARCH FIELD:

Energetics and Power Engineering (T 006)

BRIEF DESCRIPTION OF RESEARCH TOPIC:

The phenomena, where the consideration of the fluid-structure interaction (FSI) are crucial are diverse and broadly encountered e.g.: the rotation of ship's propeller, the aquatic, aerial locomotion of the animals, various fluid flows in a deformable pipes or the daily activity of the various human body organs. The FSI is the interaction of a rigid or a deformable body (structure) with an internal or surrounding fluid. The fluid interacts with a structure through a common boundary and causes the structure to move or deform or both depending on a structure. The goals of the research is the investigation of fundamental patterns of the FSI by developing a required methods and numerical models.

For more information, refer to the scientific supervisor.

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