Numerical Investigations of Heat Transfer Processes in Steam Turbine Elements

Svitlana Alyokhina

A.N.Podgorny Institute for Mechanical Engineering Problems of the National Academy of Sciences of Ukraine, 2/10 Dm.Pozharsky Str., Kharkiv, Ukraine, 61046, e-mail: alyokhina@ipmach.kharkov.ua

Abstract. An investigations of thermal and gas dynamics processes have been carried out in the space between inner and outer cases and exhaust hood of high-pressure cylinder. The direct coupled problem of heat exchange has been solved. Based on these results the heat transfer coefficients on surfaces by the decision of inverse problem of heat transfer are defined.

Keywords: conjugate heat transfer problem, heat transfer coefficient, steam turbine.