Implementation Of Optimization Method For Inverse Heat Conduction And For Sensor Position Correction

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Abstract

In this work the implementation of an optimization method [1, 2] for inverse heat transfer and for the sensor position correction, such as thermocouples, in COMSOL Multiphysics®and LiveLink™ for MATLAB® is presented. The inverse method is used to determine the unknown boundary condition and for the calculation of the thermal condition of a test plate, which is exposed to hot reactive flows. Further, the positioning of thermocouple is subject to errors. Hence, an additional optimization method is applied to correct the sensor positions.