

PARTIAL AUTOMATED DESIGN OPTIMIZATION BASED ON ADAPTIVE SEARCH TECHNIQUES

W. Jakob, S. Meinzer, A. Quinte, W. Süß, M. Gorges-Schleuter, H. Eggert

Forschungszentrum Karlsruhe, Institut für Angewandte Informatik, Postfach 3640, D-76021 Karlsruhe, Germany

e-mail: jakob@iai.fzk.de

ABSTRACT

The concept of a partial automated design optimization and its first application on the improvement of a micropump design is described. Starting with an analog simulation model an evolutionary algorithm is used to modify the parameters of this model until an optimal behaviour of the system is obtained. The quality of the optimization depends highly on the quality of the simulation model thus we give an outlook on a concept for improving the analog simulation model by using FEM results.