

Doctoral Position

in the Simulation of Packaging and Filling Machines

The research project falls into the area of packaging and filling machines. Aim is the numerical optimization of the sterilization and filling processes. As a first step, you will develop appropriate models to represent the underlying process. Subsequently, these models will be solved in the frame of our in-house flow solver; you will gain an understanding of the process and quantify the influence of the process parameters. The numerical analysis will be based on the finite element method on deforming computational domains. The identification of the relevant process parameters is prerequisite for the subsequent numerical optimization. Your work will be conducted in cooperation with an industrial partner and supported by experiments.

Your profile: Requirement for this position is a diploma or master's degree in CES, engineering, applied mathematics, physics or a similar subject with a superior academic record. Practical programming experience in Fortran or C as well as with parallelization (MPI or OpenMP) are of advantage. Familiarity with UNIX operating system would be ideal. We expect you to contribute to general tasks at the institute, such as teaching and advising master or project theses.

Our offer: The candidate will be employed as a regular employee and must meet required personal qualifications. Please also note the corresponding advertisement in the RWTH job portal with number 16765 (in German). This is a full-time position with salary according to civil service pay scale TV-L E 13 (www.cats.rwth-aachen.de/jobs/bat). The expected appointment period is up to five years, with an initial appointment for one year. Applications are being reviewed now.

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Starting date: by mutual agreement