

Model reduction applied to packaging systems

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The results presented are from a collaboration with the company MOXOFF s.p.a. and Tetra Pak, world leader in food processing and packaging solutions, where different model reduction strategies have been adopted to improve the efficiency of the simulation pipeline for the analysis of fluid-structure interaction problems in the filling and forming processes. The successful implementation of a set of model reduction techniques, including geometrical multi-scale models, reduced basis method, transpiration and absorbing boundary conditions is considered.