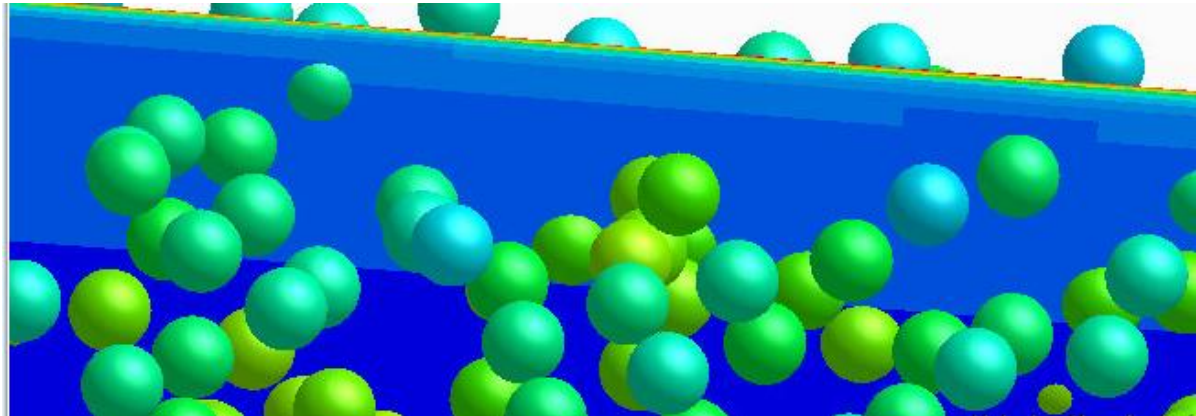


Master thesis assignment at Tetra Pak Processing Systems



Can we calculate heat transfer of liquids with particles using CFD and DEM, (Discrete element modelling)?

Tetra Pak delivers liquid food processing equipment. A key component in almost all processing lines is the heat treatment step where the food product is heated, made safe for consumption and get its desired properties. For liquids as milk or ketchup there is no problem to calculate the heat transfer rates and thus dimension the lines, but now we see that more and more products include particles and then it gets trickier. In this project we will evaluate how well we can predict the heat transfer rates using the DEM functionality in Star CCM+.

For this task you need to have an interest in CFD and be ready to really push a commercial code to the max. You must of course have a good fluid dynamic knowledge and experience in Star CCM+ is a plus

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| Contact person: | Fredrik Innings |
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| Telephone: | 046-362014 |
| Time needed: | 20 weeks |
| Starting date: | January |
| Location: | Tetra Pak in Lund |