

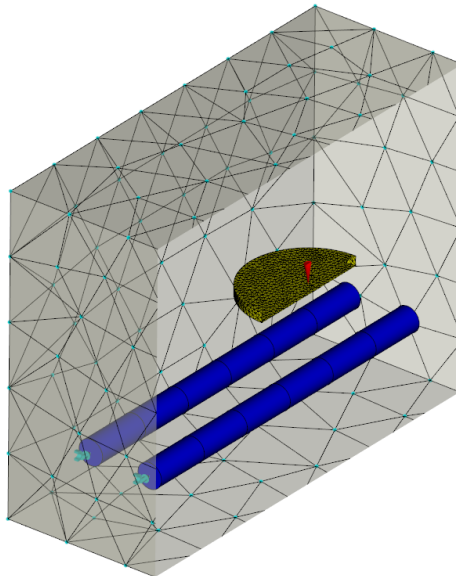
An injection molding simulation utilizing Finite Cell Method

Setting:

- Simulation of the cooling plays a great role in facilitation of the injection molding process
- Finite Cell Method is an embedded domain approach, which greatly simplify meshing
- The approach needs to be validated with respect to the commercial software Moldflow (Autodesk, Inc.)

Project Characteristics

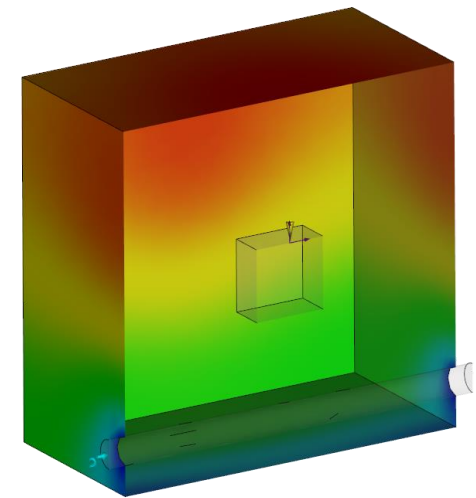
Physics: ★★★★★
Mathematics: ★★☆☆☆
Programming: ★★★★★



Flux, mold boundary_1
= 171.6(W/m²)

Part_study

[W/m²]
171.6
156.0
140.5
124.9
109.3



AUTODESK
MOLDFLOW INSIGHT

Scale (90 mm)

An injection molding simulation utilizing Finite Cell Method

Task:

- Get familiar with the physics of the heat transfer process
- Implement the module in AdhoC++, which enables the heat transfer process simulation of the injection molding
- Validate the numerical results with the results obtained by Moldflow (Autodesk, Inc.)

Project Characteristics

Physics: ★★★★★
Mathematics: ★★☆☆☆
Programming: ★★★★★

