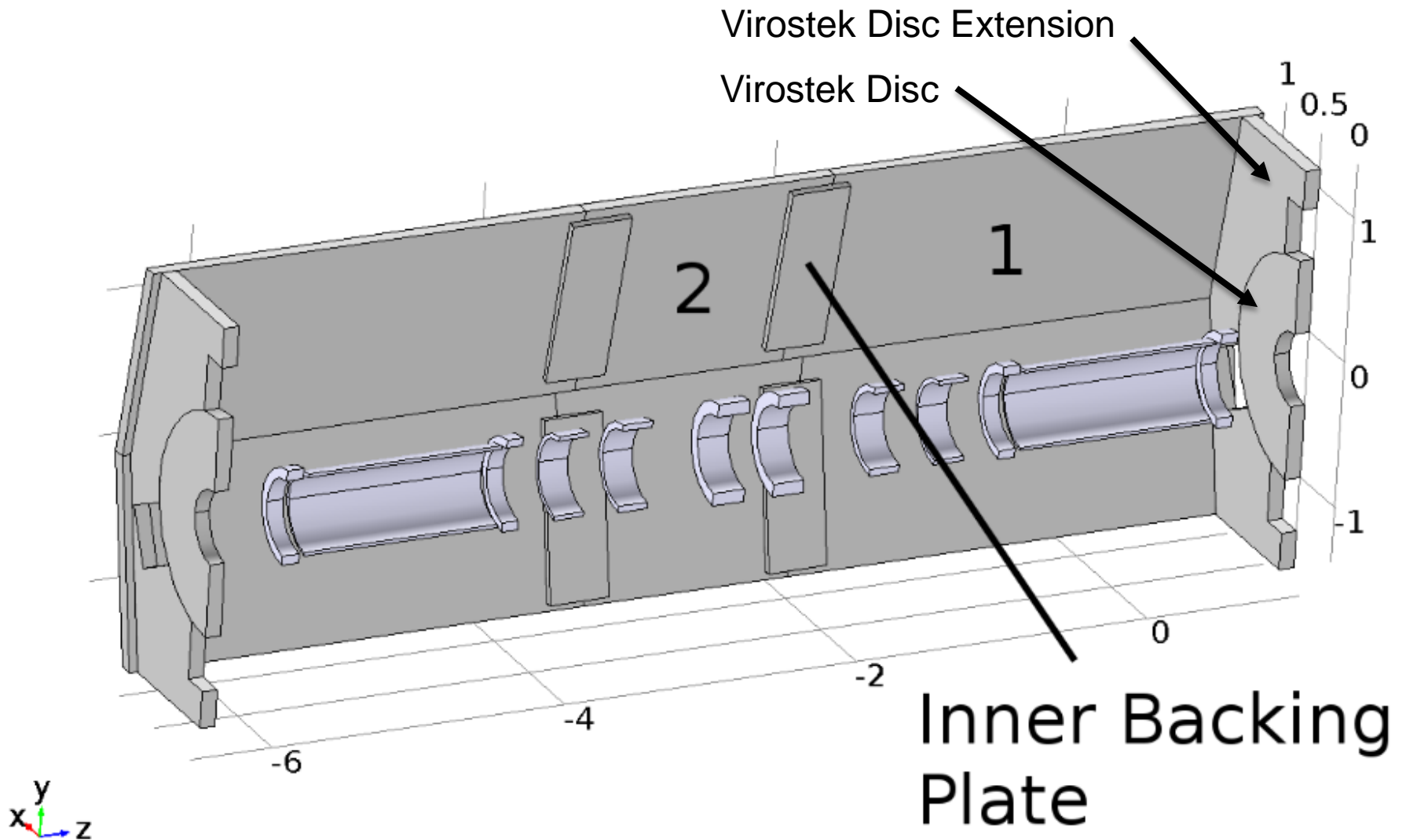


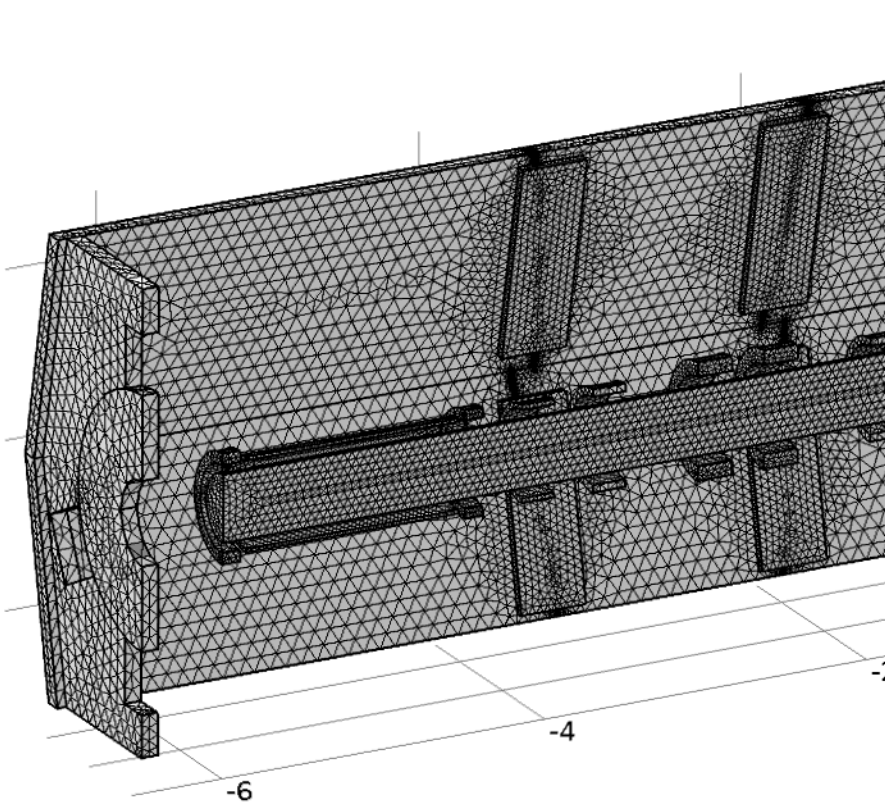
# MICE PRY Forces

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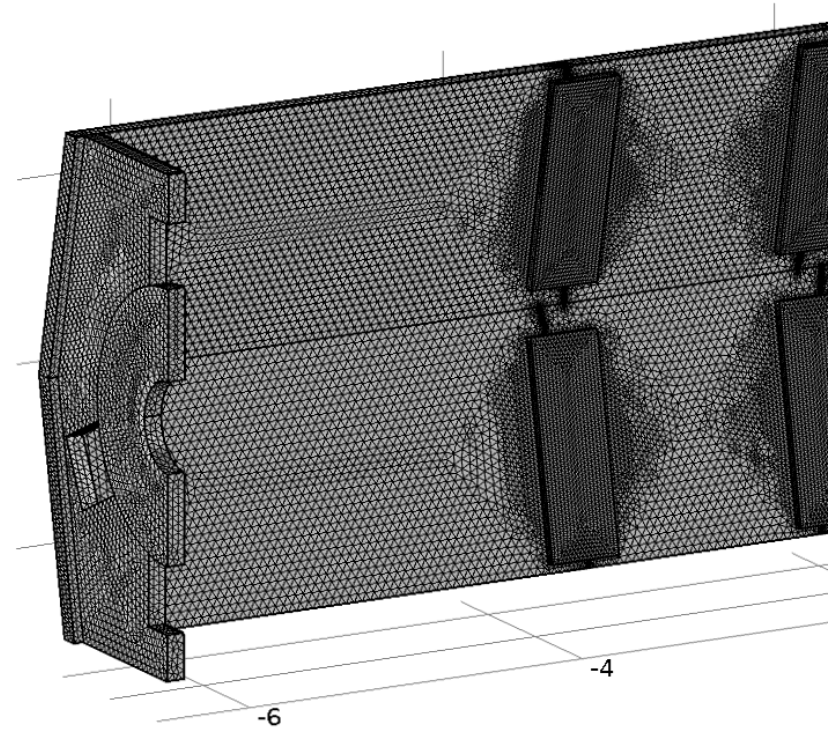


# Mesh Sizes

Forces for 240 MeV Solenoid mode verified with refined mesh:

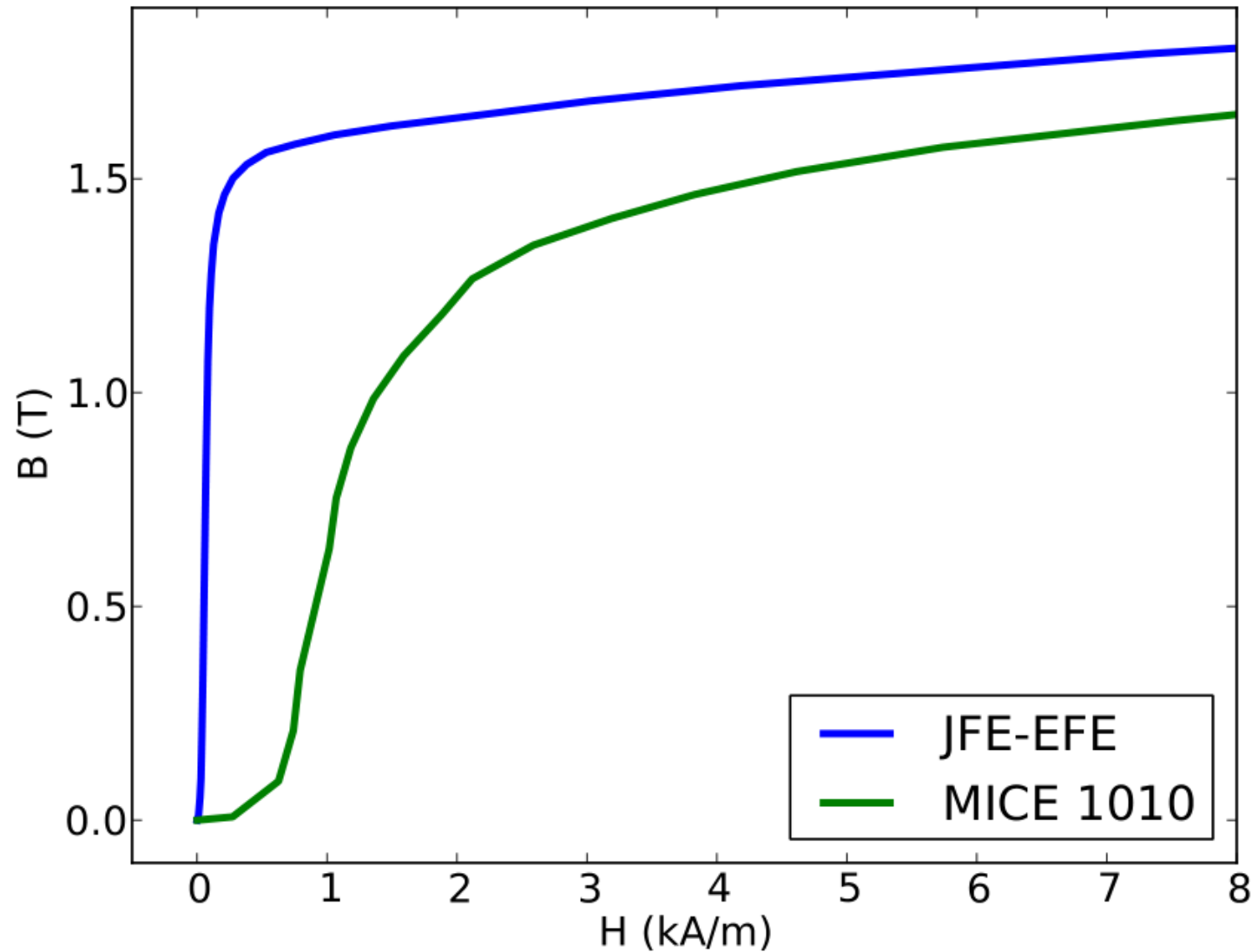


Coarse

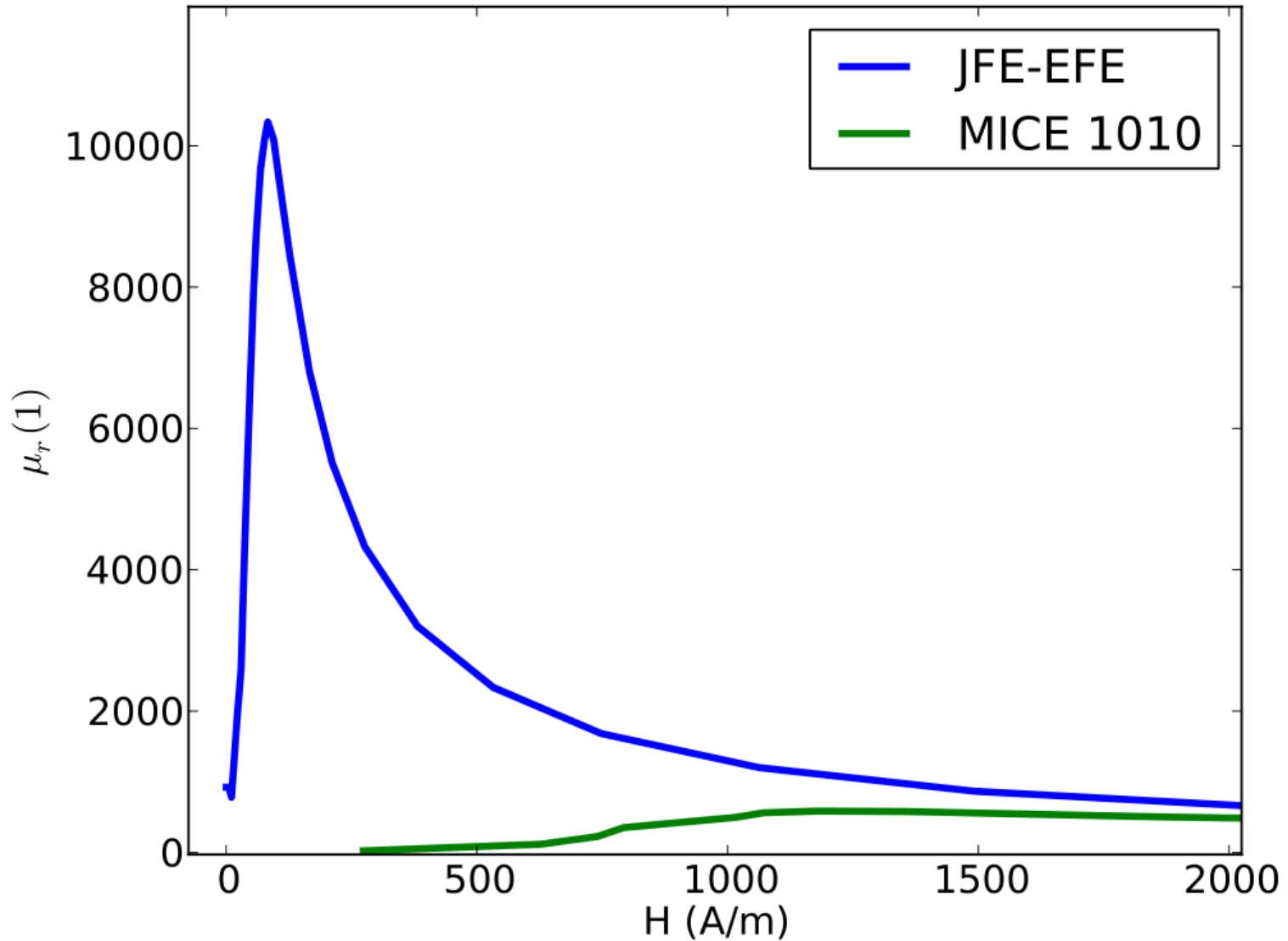


Fine

# Magnetization Curves



# Permeability



# Force 240 MeV Solenoid



	<b>F<sub>x</sub></b>	<b>F<sub>y</sub></b>	<b>F<sub>z</sub></b>
PRY 1	-193.88726	96.79914	-1576.21354
PRY 2	-477.3076	-414.83568	0.52521
Virostek Disc Extension (see note below)	-3942.23686	648.92768	-1168.99187
Virostek Disc (see note below)	-10307.34413	-109.24935	-54726.84423
Backing Plate Inner	18593.80285	3782.64739	-0.31678
Backing Plate Outer	-18567.24127	-3777.68469	1.09707

All forces in Newton.

Note: Force on Virostek Disc and Virostek Disc Extension are for **half** of the structure.

The total force in z-direction for the Virostek Disc is  $-54726+(-54726)$  N = -109452N

The total force in x-direction for the Virostek Disc is  $-3942-(-3942)$ N = 0N

The total force in y-direction for the Virostek Disc is  $-10307+(-10307)$ N = -20614N

Forces calculated for Virostek Disc with ID 500 mm and without TOF cage.

# Force 240 MeV Flip Mode



	F <sub>x</sub>	F <sub>y</sub>	F <sub>z</sub>
PRY 1	-5366.11664	-982.91892	-673.88884
PRY 2	-3994.39523	-655.03045	11.45008
Virostek Disc Extension (see note below)	-4002.04145	864.80466	-1157.08494
Virostek Disc (see note below)	-10486.99736	-518.05566	-56205.33802
Backing Plate Inner	8006.80999	1599.12588	-218.06312
Backing Plate Outer	-7832.26645	-1591.93765	-0.17483

All forces in Newton.

Note: Force on Virostek Disc and Virostek Disc Extension are for **half** of the structure.  
The total force in z-direction for the Virostek Disc is  $-56205 + (-56205) \text{ N} = -112410 \text{ N}$   
The total force in x-direction for the Virostek Disc is  $-10487 - (-10487) = 0 \text{ N}$   
The total force in y-direction for the Virostek Disc is  $-518 + (-518) \text{ N} = -1036 \text{ N}$

Forces calculated for Virostek Disc with ID 500 mm and without TOF cage.