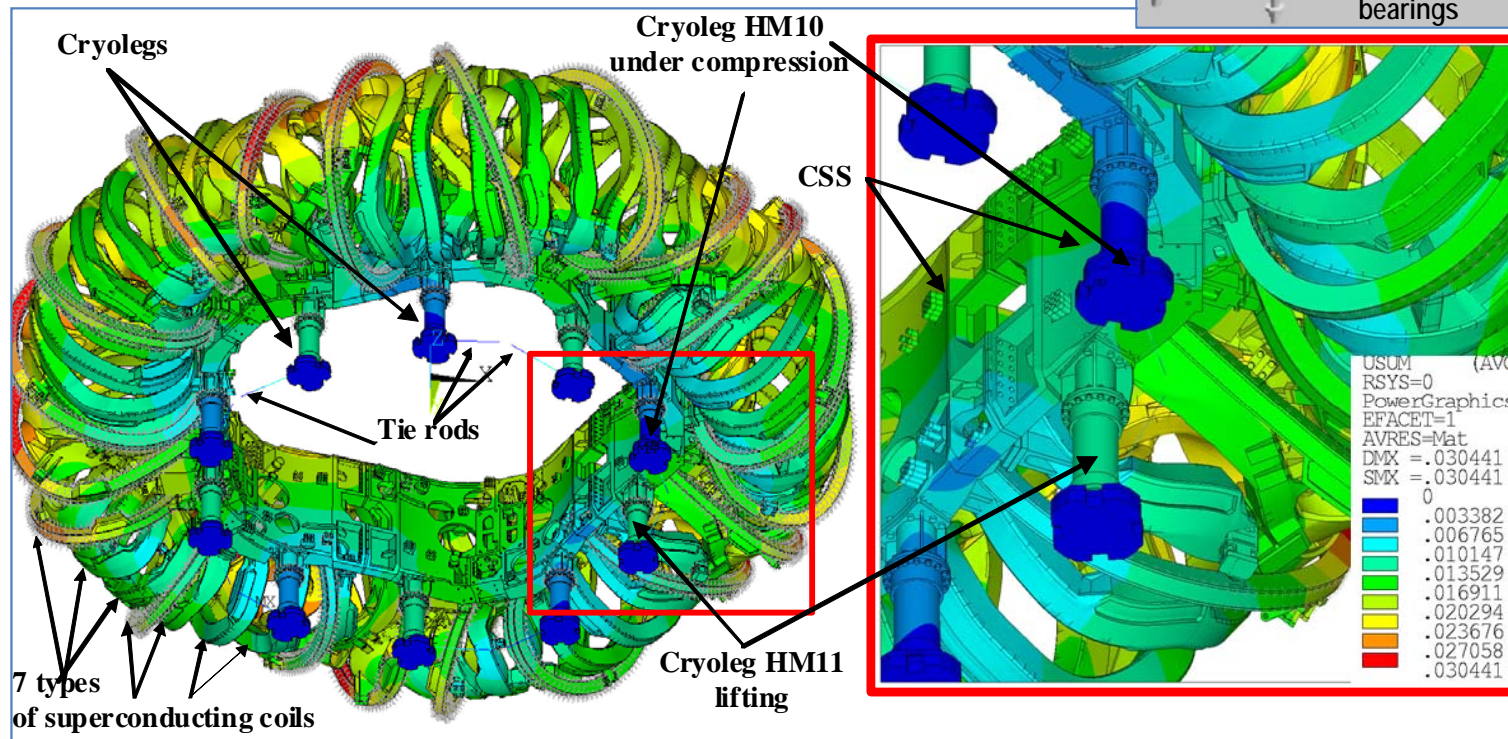
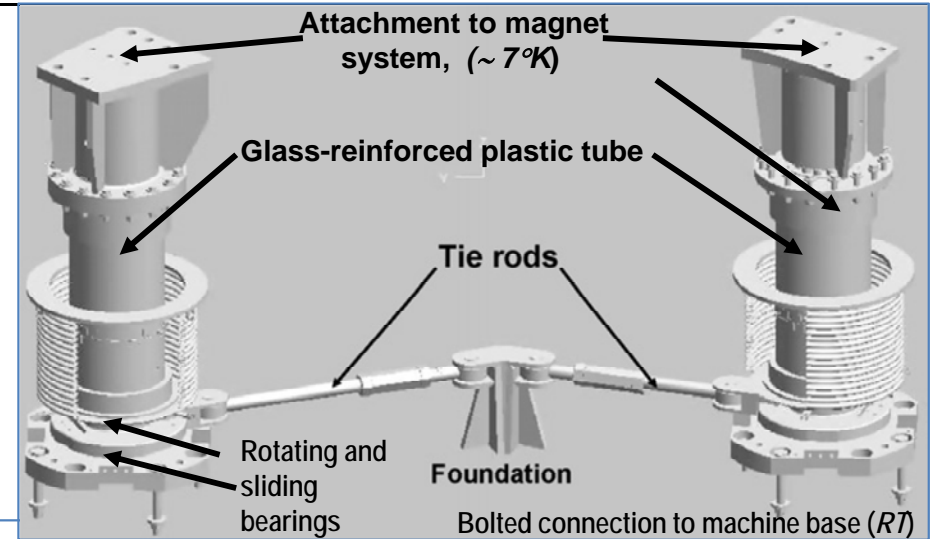


Sliding supports for large superconducting magnet system (cryo-legs)

Advanced modular stellarator Wendelstein 7-X

Asymmetric loading due to trim coils (error field correction [1]) and vertical position of cryo-legs

Advanced FE analysis and fatigue estimations



Load cases for cryo-legs

Half module	Direction	Force, kN
HMx0:	Compressive	1200
	Horizontal	194
HMx1	Compressive	~ 10
	Horizontal	62

[1] see also [FIP/P8-19](#)
Final Assessment of Wendelstein 7-X Magnetic Field Perturbations Caused by Construction Asymmetries
 T. Andreeva

Number of trim coil cycles needs to be considered, counted and assessed before and during W7-X operation using the results of cryo-leg behavior monitoring