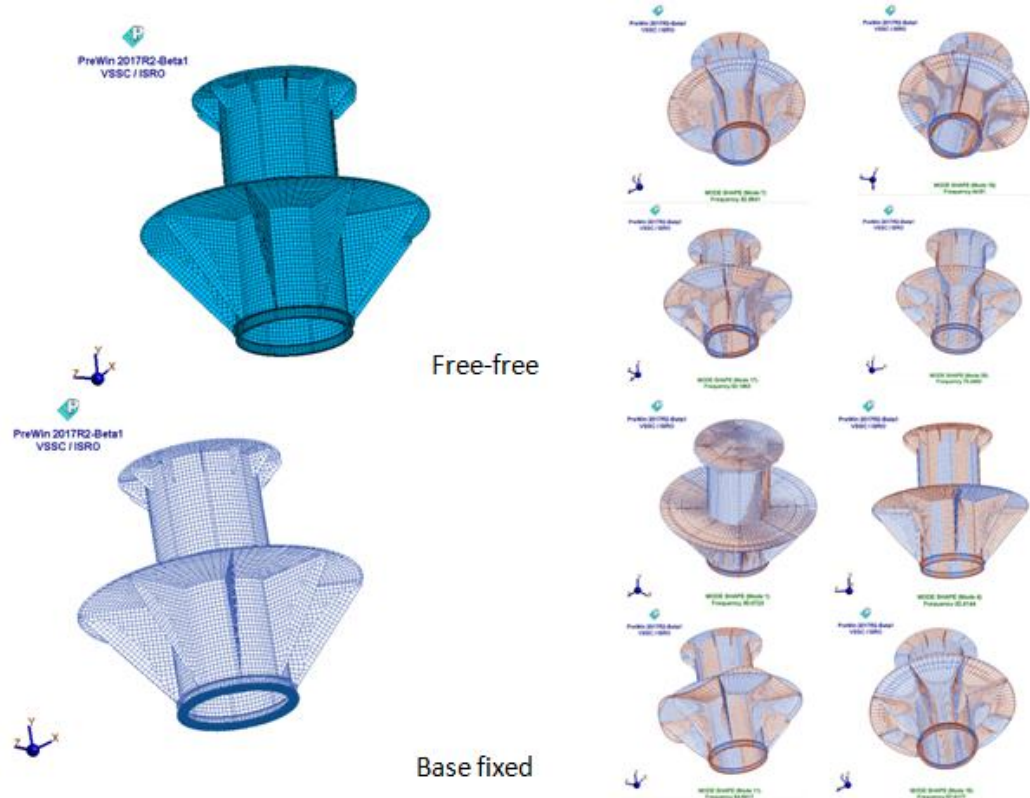


Free vibration analysis of satellite simulator



Boundary condition: Case1:Free-free vibration, Case2: Base fixed analysis.

Material property : Mat1:E=210 *GPa*, $\nu = 0.3$, Specific gravity = 8.03 Mat2: E=70 *GPa*, $\nu = 0.3$, Specific gravity = 2.7

Element types : Hexahedron element

Finite element statistics :

	Number of nodes	Number of elements	Degrees of freedom
	14914	14824	86604

	Mode	Natural frequencies	
		FEAST ^{SMT}	NASTRAN [®]
Case1:Free-free analysis	7	32.37	31.75
	8	32.37	31.75
	9	32.43	31.82
	10	32.45	31.84
	11	32.45	31.84
	12	32.75	32.13
Case2:Base fixed analysis	1	30.07	30.48
	2	30.07	30.48
	3	32.12	31.51
	4	32.41	31.80
	5	32.42	31.80
	6	32.45	31.87