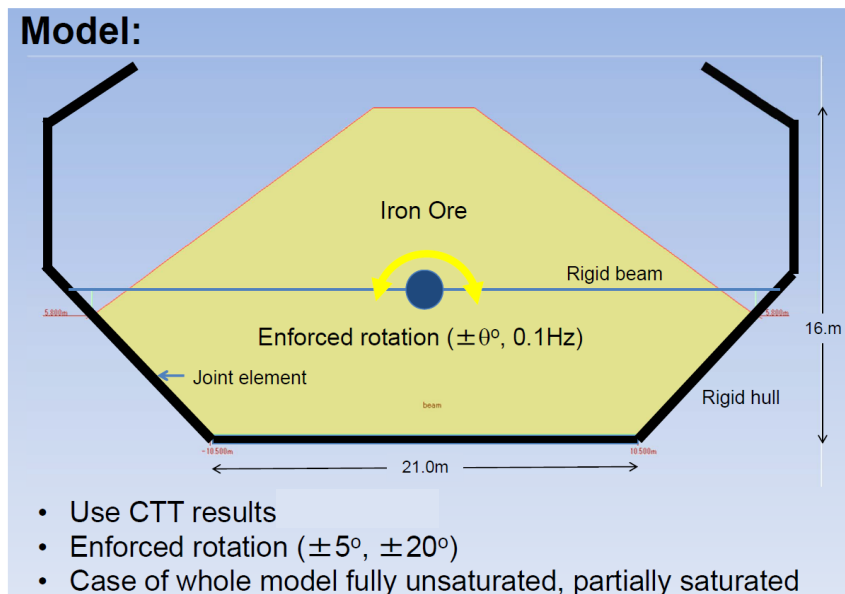


Analysis of liquefaction of iron ore in an iron ore ship during storm condition

Two dimensional partially drained analysis is performed on an iron ore carrying ship by enforcing rotation of a ship for simulating rolling response during storm condition to study the possibility of liquefaction and deformation of iron ore (FLIP application project in New Zealand).



As shown in the next figure, varying degree of liquefaction and associated deformation of iron ore are computed depending on intensity of ship motion, degree of saturation and coefficient of permeability of iron ore.

FLIP ROSE can be applied to various dynamic problems due to external load other than earthquakes.

