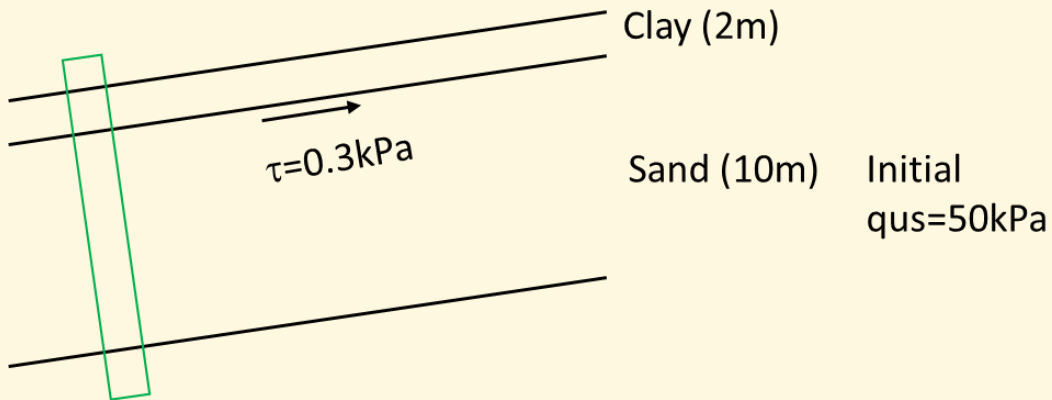
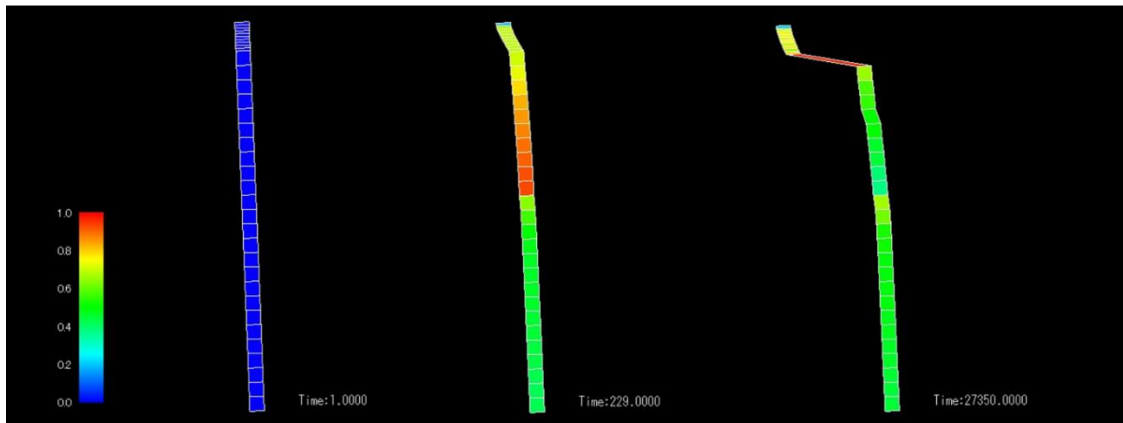


## Analysis of deformation of slope (land slide) during earthquakes

A mild slope (in  $2^\circ$ ) with a surface covering of a 2m thick clay layer over 10m thick saturated sand deposit is analyzed using cocktail glass model of FLIP ROSE 2D. In this analysis, whole sloping ground is represented by a columnar one dimensional region indicated by green square.



### Delayed flow failure (analysis)



From left to right "before earthquake", "during earthquake", "7 hours after earthquake", and red color portion in the center figure indicates 10m thick sand layer. Excess pore water pressure gradually propagates from sand layer towards bottom of overlaying clay layer and after 7 hours, large scale land slide occurs at the bottom of the clay layer.

