

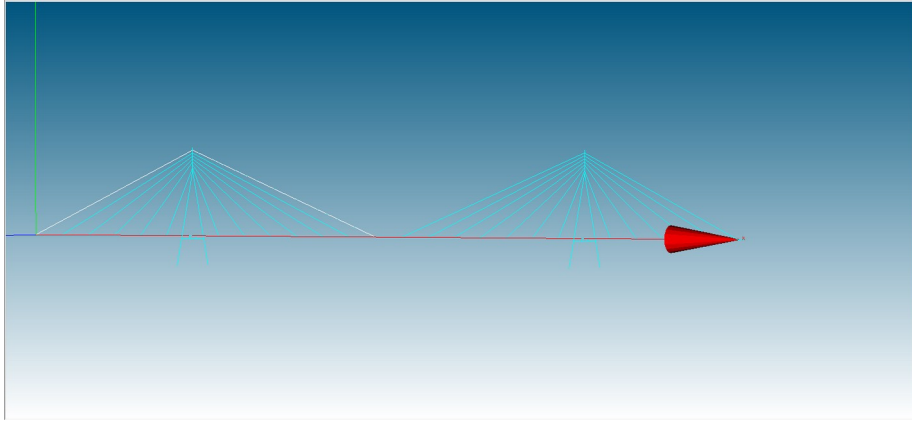
English Class Presentation

7022611 湊 玲遠

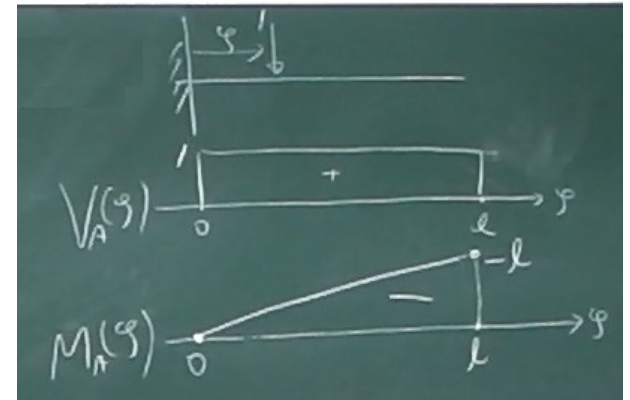
1.Explain my research

- Influence line analysis considering nonlinearity of cable-stayed bridges
- Recently...

I have been analyzing the cable axial force when force is applied to the floor slab.



←Using model



↑ Influence line

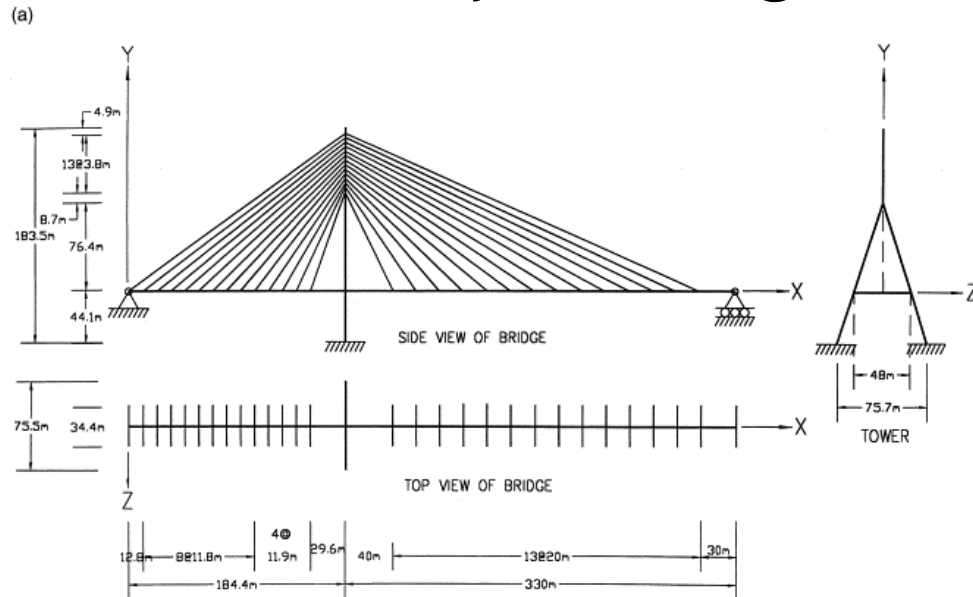
2.Explain read paper

Title:

Study on nonlinear analysis of a highly redundant cable-stayed bridge

Author:Pao-Hsii Wang,Hung-Ta Lin,Tzu-Yang Tang

<https://www.sciencedirect.com/science/article/pii/S0045794901001663?via%3Dihub>



2.Explain read paper

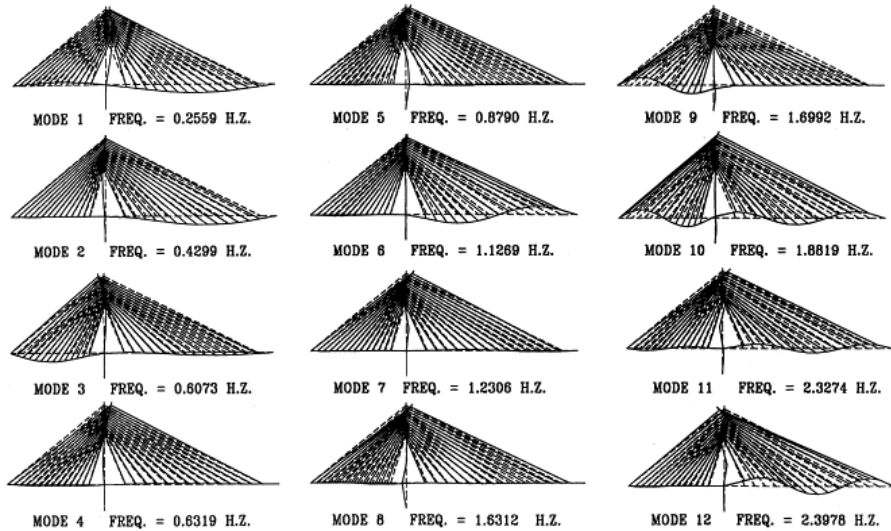
Title:

Study on nonlinear analysis of a highly redundant cable-stayed bridge

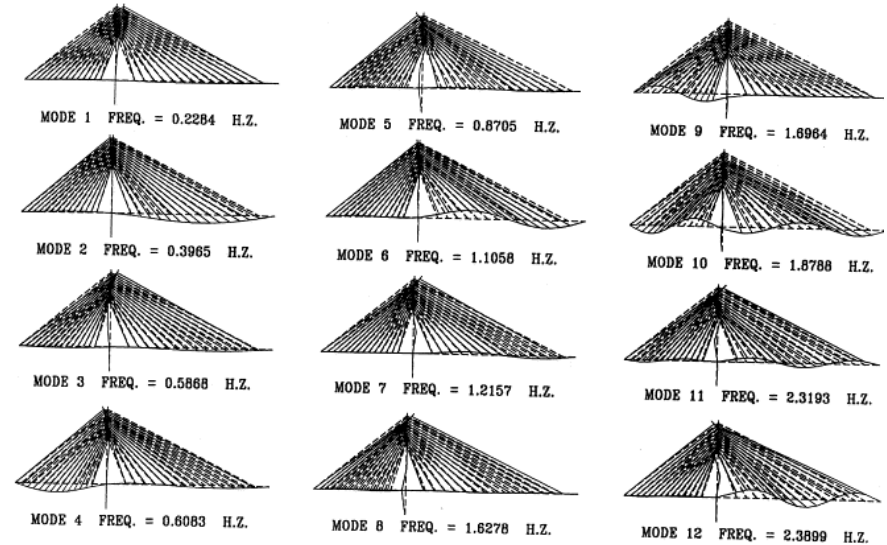
The analysis of vibration modes and fundamental frequencies of cable-stayed bridges and prestress distribution are investigated with and without geometric nonlinear considerations.

3.Relevant to my research

- the analysis is performed for cable-stayed bridges with and without geometric nonlinear.



Linear model



Nonlinear model

Difference between linear analysis and nonlinear analysis vibration modes

3.Relevant to my research

- the analysis is performed for cable-stayed bridges with and without geometric nonlinear.
- A description of the cable analysis method,
Axial forces and deflections in cable elements

4. Apply this research to

- In the future, we would like to analyze seismic motions in addition to influence line analysis
- Therefore, the analysis results of natural frequencies and the difference of vibration modes would be helpful

