

# LINEAR AND NON-LINEAR FINITE ELEMENT ANALYSES OF CRACKING BEHAVIOR OF WING WALLS IN INTEGRAL BRIDGES

## Methodology:

- Analyze the structure using linear FEA (Abaqus)
- Traditional reinforcement design vs. Strut and tie method
- Check the cracking behavior using nonlinear FEA (Abaqus)
- Comparison between the results of different approaches

## Outcome:

- A literature review (e.g. design and construction procedures of the wing walls, Strut and tie modelling, Nonlinear FEA)
- Propose an appropriate design procedure for cracking control in the wing walls for practical purposes

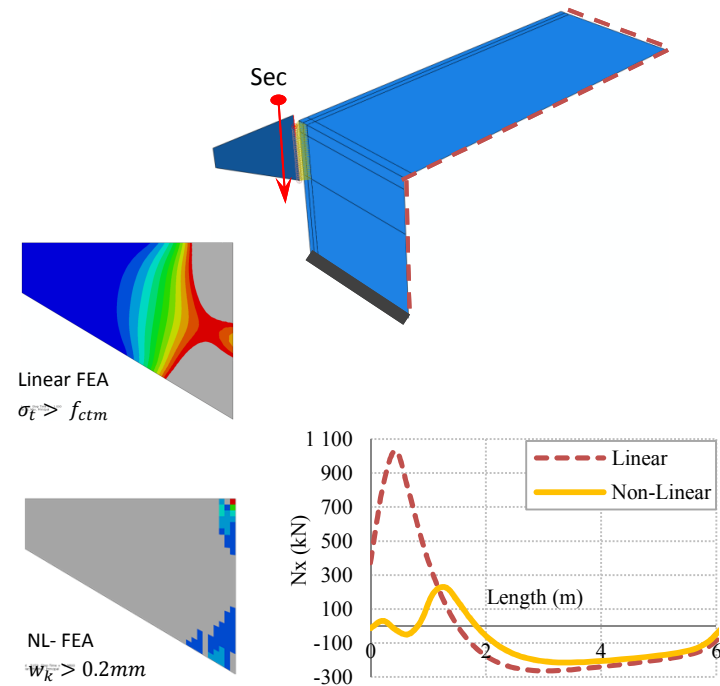
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