# The vehicle-track-soil dynamic interaction problem in sequential and parallel computing

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Problem outline
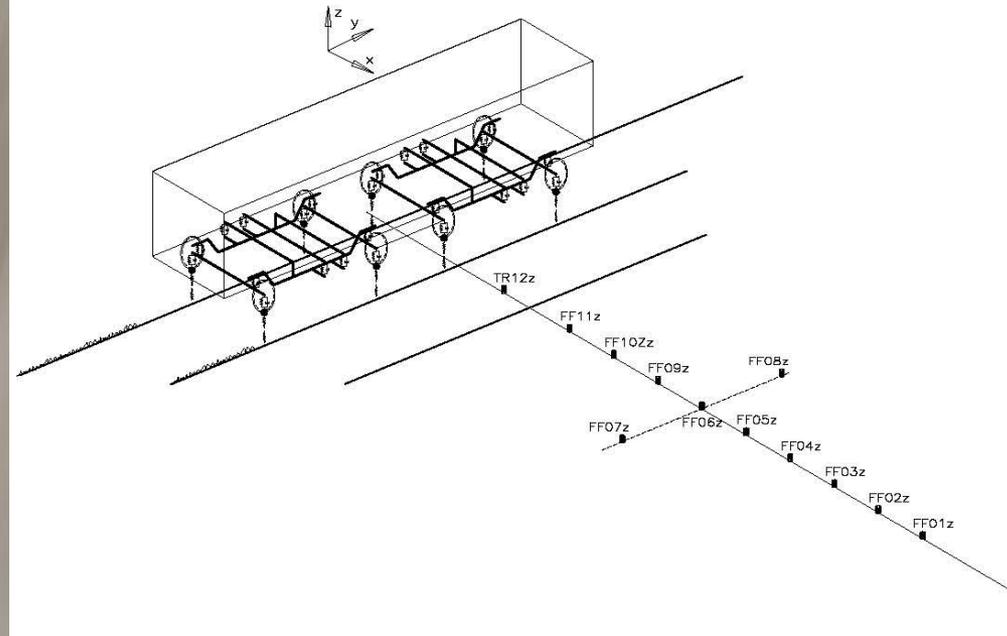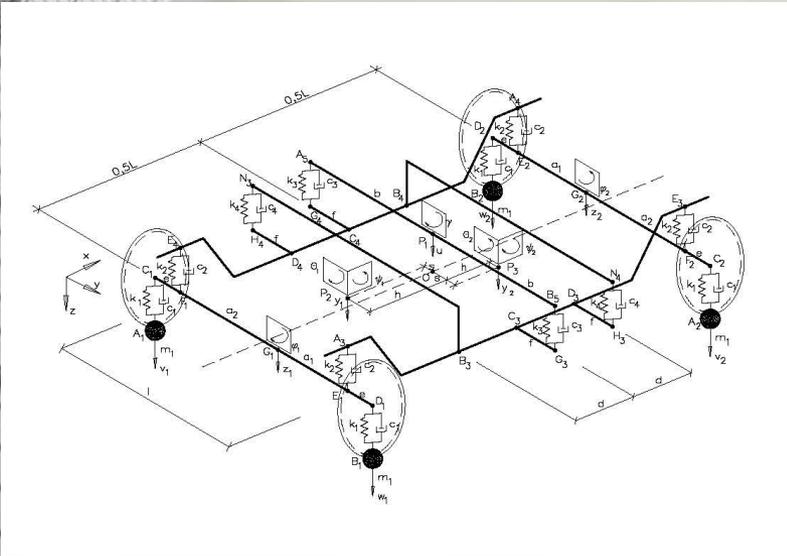
Numerical modeling and application

- Identification of the vehicle parameters

- Kinematic excitation – rail irregularities

- Kinematic excitation – wheel irregularities

- The vehicle-track-tunnel-soil interaction problems

- The dynamic response of the soil
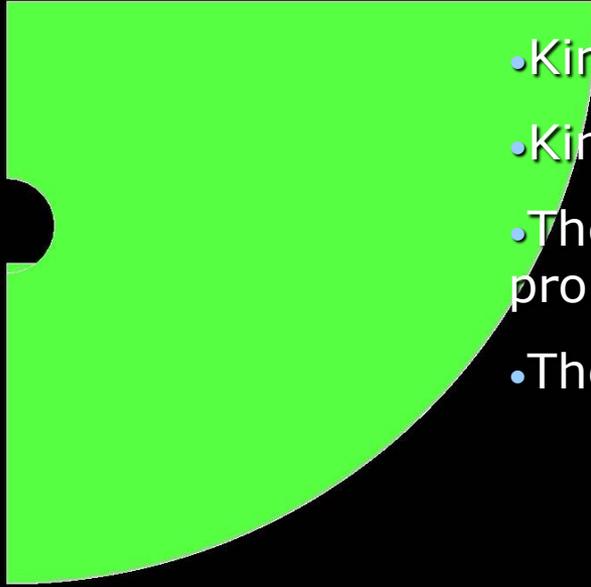
- Vertical vibration velocity

- Horizontal vibration velocity

Problems


```
Model: METRO
LC1: Load case 1
Step: 1  TIME: .1E-3
Nodal TATX...G TATX
Max = 0  Min = 0
```

```
Model: METRO
LC1: Load case 1
Step: 1  TIME: .1E-3
Nodal TATX...G TATY
Max = 0  Min = 0
```

- Large scale
- Possible pallarelism
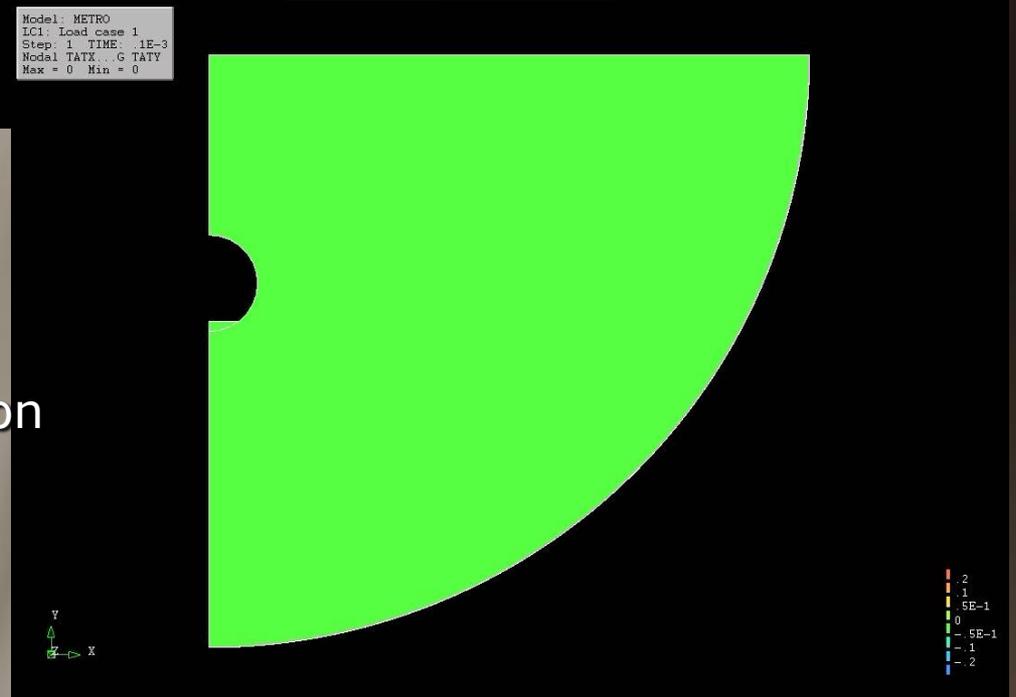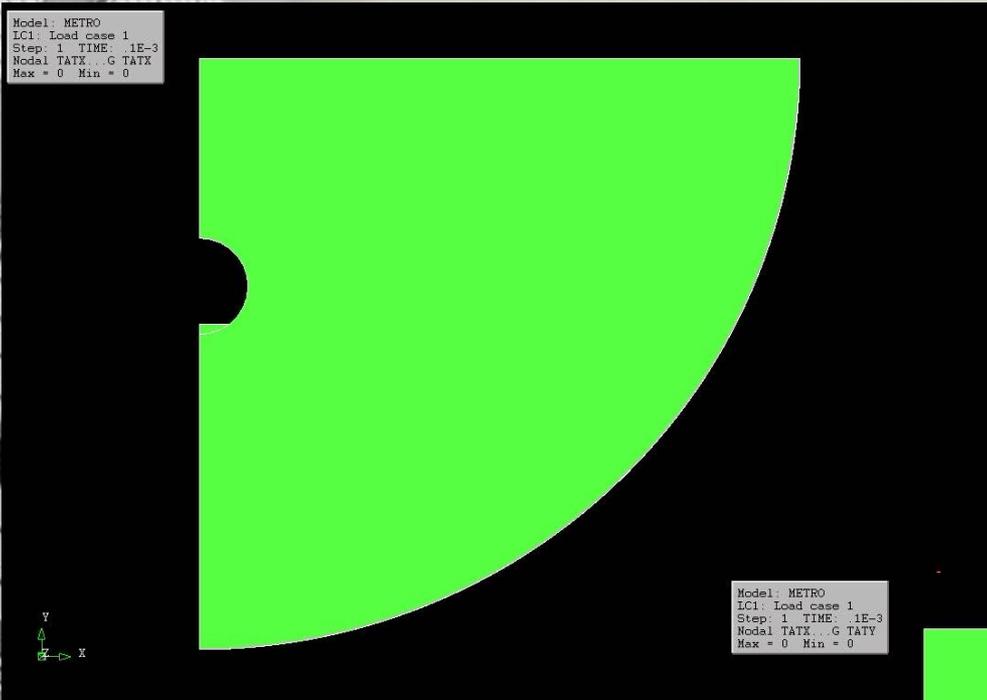
- Vertical vibration acceleration
- Horizontal vibration acceleration