The influence of non-driving related tasks on take-over performance

**MOTIVATION**
- Non-driving related tasks (NDRTs) could affect the driver state and availability for a take-over
- What effects do different NDRTs have on the driver state and how do they affect the take-over performance in different scenarios?

**METHOD**
- Driving simulator (static) study
  - \( n = 53, \text{ mean } = 32 \text{ years (SD = 16y)} \)
- Experimental design
  - Between subject factor: Type of NDRT/Modalities of the NDRTs
  - Within subject factor: instruction
  - Within subject factor: situation

**Measures**
- Eye-tracking
- Seat pressure mats
- Vehicle dynamics

**RESULTS**
- Driver state: Non-driving related tasks (NDRTs) show significant differences concerning:
  - Percent eyes on road (the SuRT leads to less PEOR compared to the other tasks)
  - Changes of the mean contact area and the center of pressure (COP) in the backrest (SuRT shows most changes, activity of drivers)

**SUMMARY**
- Different NDRTs (modalities) influence the driver state and can be detected using eye-tracking and seat pressure mats do not affect the take-over performance

**MORE DETAILS**