



# GIREP-EPEC

Transforming physics learning via Research & Practice  
LEIDEN, 2025

Contribution ID: 80

Type: **Workshop**

## **Drievliet: Embodied experiences of physics in Amusement Parks and Playgrounds - INF**

*Thursday 3 July 2025 09:00 (1h 30m)*

Combining the embodied experiences of forces in amusement rides with simple experiments, mathematical descriptions, video recordings and sensor data can give students a deeper understanding of the meaning and consequences of Newton's laws [1]. Air pressure and rotation data can be collected by a smartphone at the same time as accelerometer data, capturing different aspects of the experience and offering many examples connecting mathematics and physics [2,3]. However, data are sometimes surprising and the interpretation can be challenging. Your own examples are welcome!

### **Education level**

All ages

### **Physics topic**

Interdisciplinary topics

### **Research focus**

Innovative instructional strategies and pathways

### **Research method**

Mixed method (qualitative & quantitative)

### **Organizing preference criteria**

Track

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**Session Classification:** Workshops

**Track Classification:** Informal and non-formal learning (INF)