# A short Introduction to Sliding Mode Control Robust Control for Nonlinear Systems

Dr. Rainer Nitsche<sup>1</sup>

 $^{1}$ Dept. Robotics System Design Group

Control Methods in Robotics, August 2021



## Sample frame title

This is some text in the first frame. This is some text in the first frame. This is some text in the first frame.

This is a text in second frame. For the sake of showing an example.

• Text visible on slide 1

This is a text in second frame. For the sake of showing an example.

- Text visible on slide 1
- Text visible on slide 2

This is a text in second frame. For the sake of showing an example.

- Text visible on slide 1
- Text visible on slide 2
- Text visible on slide 3



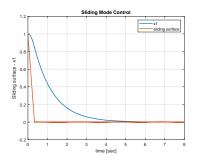
This is a text in second frame. For the sake of showing an example.

- Text visible on slide 1
- Text visible on slide 2
- Text visible on slide 4

# A motivating Example for SMC

Sliding mode of the system:

$$\ddot{x} = \sin(3t) + u \tag{1}$$



July 16, 2021