

A U S H A N G

FREIE UNIVERSITÄT BERLIN Fachbereich Mathematik und Informatik

Promotionsbüro, Arnimallee 14, 14195 Berlin

DISPUTATION

Freitag, 29. Juni 2018, 10.15 Uhr

Ort: SR006 der Takustr. 9, 14195 Berlin

Disputation über die Doktorarbeit von

Herrn David Perdomo Lopez

**Thema der Dissertation und der Disputation:
Scenario interpretation for automated driving
at urban intersections**

Die Arbeit wurde unter der Betreuung von **Prof. Dr. R. Rojas** durchgeführt.

Abstract: The presentation deals with the development of a scenario interpretation module for automated driving at urban intersections. The main objective is to interpret the information from the perception module in order to guide the ego vehicle along the desired path to complete the maneuver. The key idea is to interpret the scenario by breaking down the whole desired maneuver into a sequence of primary situations. Using this concept, the object prediction module is significantly simplified. The movement of other involved road users is estimated, and this estimation is used to calculate the probability that every primary situation is occupied. This concept is presented for vehicles and pedestrians. The implementation of the developed approaches in a demonstrator vehicle and the consequent evaluation confirms that the presented solution is suitable for interpreting the scenario at urban intersections.

Die Disputation besteht aus dem o. g. Vortrag, danach der Vorstellung der Dissertation einschließlich jeweils anschließenden Aussprachen.

Interessierte werden hiermit herzlich eingeladen

Der Vorsitzende der Promotionskommission
Prof. Dr. R. Rojas