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Project Ko-TAG Cooperative Transponder for Traffic Safety

Kooperative Transponder für mehr Sicherheit im Straßenverkehr

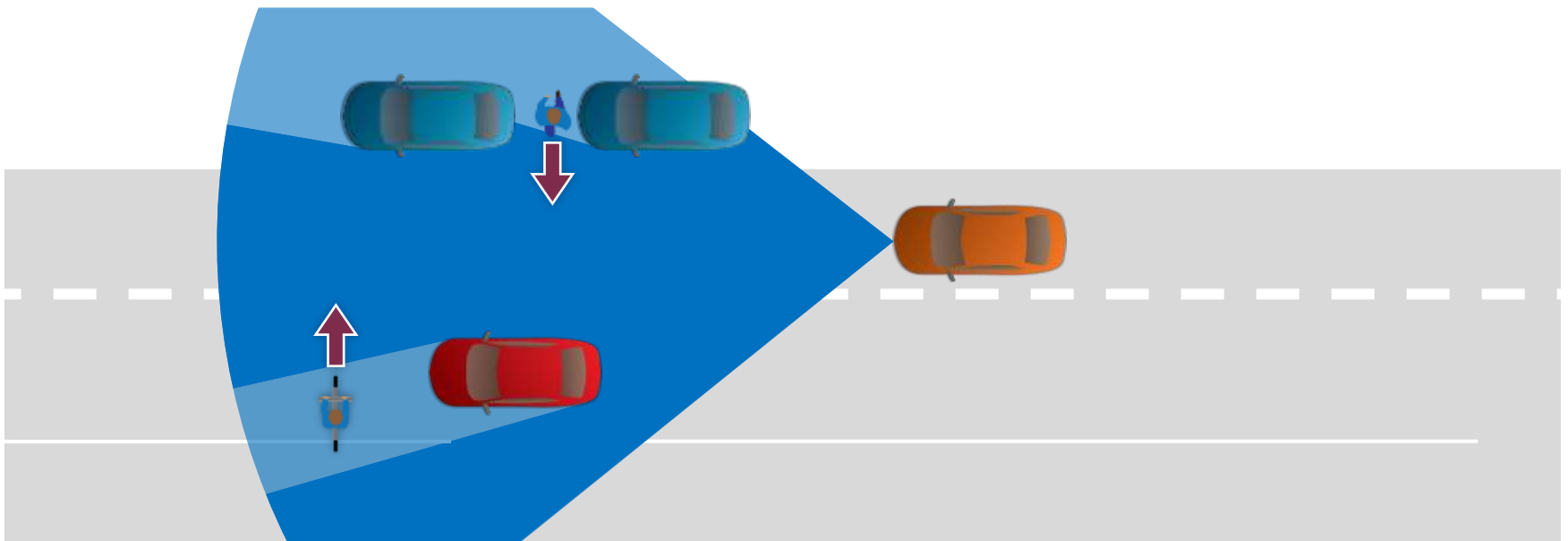
Dr. Daniel Schwarz
BMW Group

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Sensor fusion systems offer highly accurate object positions under Line-of-Sight conditions.



A communication link offers data exchange and objects classification even under non-Line-of-Sight conditions.

Onboard perception sensors (Radar, Camera)

- exact localization of objects
- validation of received data through cooperative localization



Cooperative Sensors Technology



Communication (DSRC)

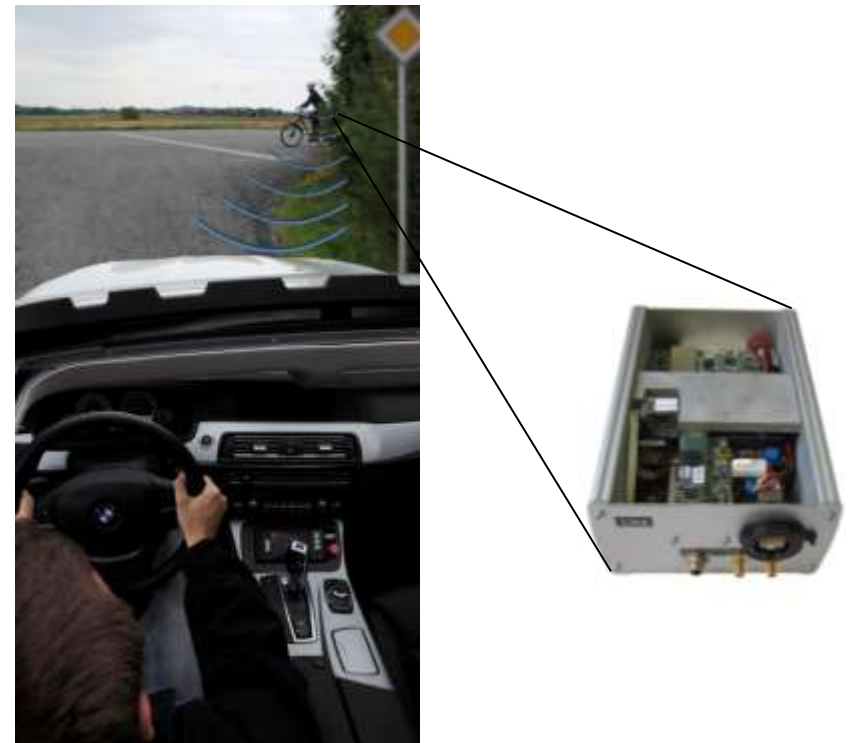
- classification
- transmission of data that can not be measured directly
- data transmission even without Line-of-Sight



Integrated localization and communication unit (OBU)



Cooperative transponders (SafeTAG)



Ko-TAG System



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- Precise localization of cooperative objects through cooperative distance and Angle-of-Arrival measurement.
- Reuse of existing C2X standards
- Development of protocol and communication unit for efficient coordination of localization and communication functionality
- Prevention misuse
- Reliable prediction of object maneuvers by usage of inertial sensors on the SafeTAG
- Implementation of assistance systems based on cooperative transponder localization for pedestrian, bicyclist and vehicle safety

Applications – shown at the live demonstrations



Applications – shown at the live demonstrations



More applications and technical information?



Meet the experts in the sessions, at the poster booth and at the live demonstrations!



Thank you for your attention!

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