

Master's Thesis

Environmental Modelling and Localization with High-Resolution Automotive Radar

Taking the advantages of all-weather robustness, various applications with the radar sensors are found in the automotive industry, especially in the area of advanced driver assistance systems and autonomous driving systems. A novel high-resolution automotive radar system has the ability to detect thousands of reflection points per cycle, which promotes the perception capability on a pixel level similar to video systems. In this master thesis, the static and dynamic environment around the vehicle is modelled and the vehicle position is located based on high-resolution radar.

Advisors

Martin Piccolrovazzi