

# Trends in Automotive Radar Signal Processing

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## **Abstract**

This contribution summarizes the presentations in the area of automotive radar at ICMIM 2015 (IEEE MTT-S International Conference on Microwaves for Intelligent Mobility) with special focus on radar signal processing. First, orientation estimation of vehicles based on different automotive imaging radars is presented. It is shown, that powerful imaging radars allow for an estimation of the orientation comparable to other sensor technologies, but at a much higher level of robustness. Second, the topic of interference mitigation for chirp sequence modulated radars in time domain and in the spatial domain by beamforming is presented. The presentation includes the algorithmic background as well as real world measurements by different automotive imaging radar prototypes.

## **Keywords**

automotive radar, interference mitigation, orientation estimation, imaging radar