

# Passive Radar

Talk by Dr. V. Winkler, Hensoldt

Thursday, January 25rd 2024, 15:45-17:15, Geb. 30.10, NTI-Hörsaal

Passive and multi-static radars are an active field of research, because some advantages can be gained compared to active monostatic radars. For passive radars it is possible to use illuminators of opportunity like broadcast transmitters so that system costs can be cut, no license is required and covert operation is feasible. In multi-static configurations the measurements of several transmitter-receiver pairs can be fused so that the detection probability and accuracy are increased. The target localization is based on the intersection of ellipses with transmitter and receiver positions as focal points. The basic principle, system architecture and track generation will be presented along realization examples from Hensoldt Sensors. Hensoldt is one of the first companies, which offers passive radar as commercial product.



*V. Winkler studied electrical engineering at the Munich University of Technology (TU München) from 1997 to 2002. Afterwards he worked as a research assistant at the institute of microwave engineering (TUM) and received his Ph.D. in 2006.*

*His first industry job was at Infineon AG on the development of automotive radar MMICs. In 2008 he changed to EADS Deutschland GmbH, where the radar electronic division has been carved out and transformed to Hensoldt Sensors. Dr. Winkler joined the passive radar development at Hensoldt at an early stage over ten years ago.*

*His research interests incorporate hybrid systems for communication and radar besides multi-static radar configurations.*