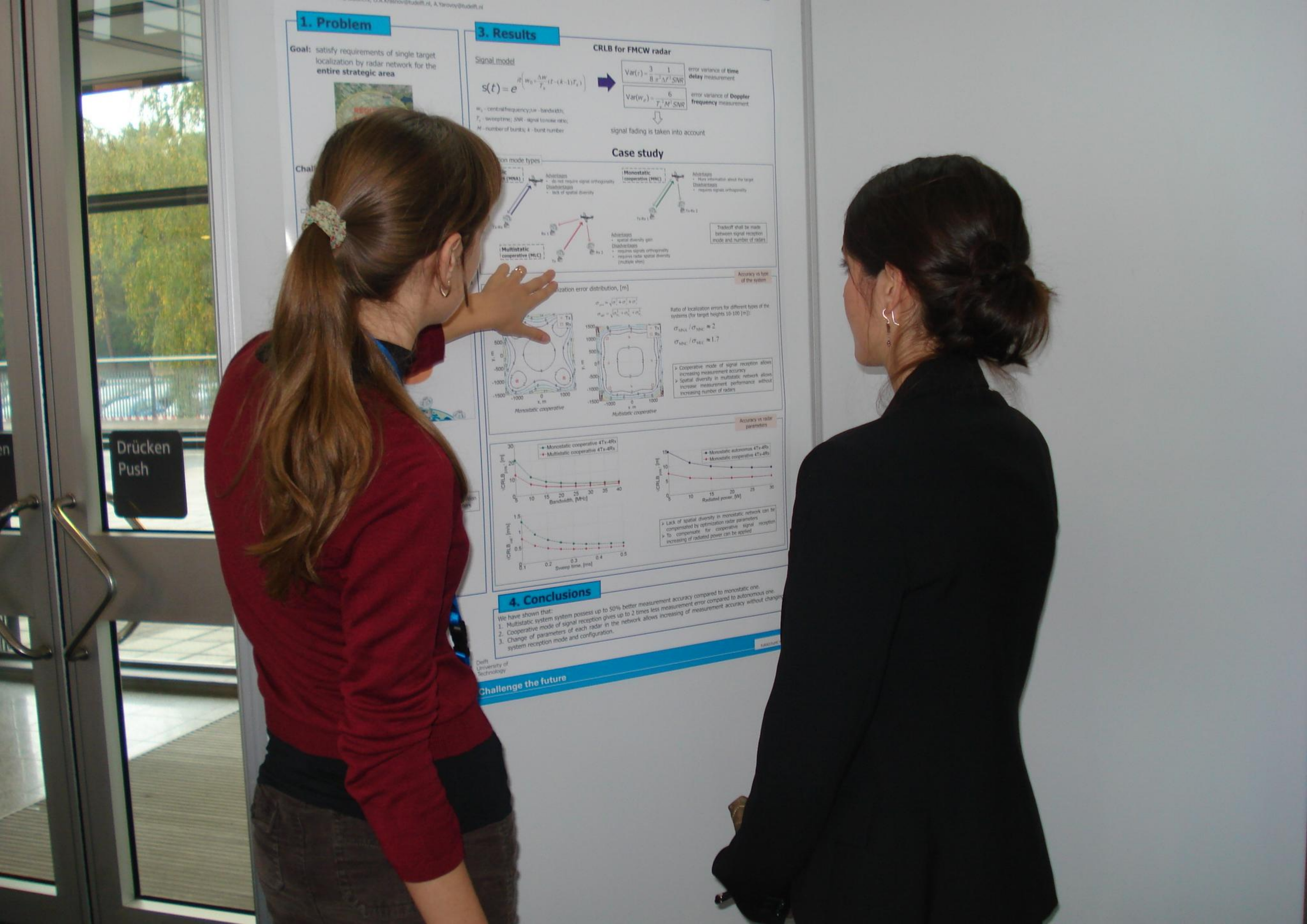
1. Problem
Goal: satisfy requirements of single target localization by radar network for the entire strategic area
3. Results
CRLB for FMCW radar
Signal model
error variance of time delay measurement
error variance of Doppler frequency measurement
signal fading is taken into account
Case study
Monostatic cooperative (MNC)
Tradeoff shall be made between signal reception mode and number of radars
Multistatic cooperative (MLC)
Accuracy vs type of the system
Monostatic cooperative
Multistatic cooperative
Accuracy vs radar parameters
Monostatic cooperative 4Tx-4Rx
Multistatic cooperative 4Tx-4Rx
Bandwidth, [MHz]
Radiated power, [W]
Sweep time, [ms]
4. Conclusions
We have shown that:
1. Multistatic system system possess up to 50% better measurement accuracy compared to monostatic one.
2. Cooperative mode of signal reception gives up to 2 times less measurement error compared to autonomous one.
3. Change of parameters of each radar in the network allows increasing of measurement accuracy without changing
system reception mode and configuration.
Delft University of Technology
Challenge the future
Drücken
Push