Pitch: UFZ Hohesholz

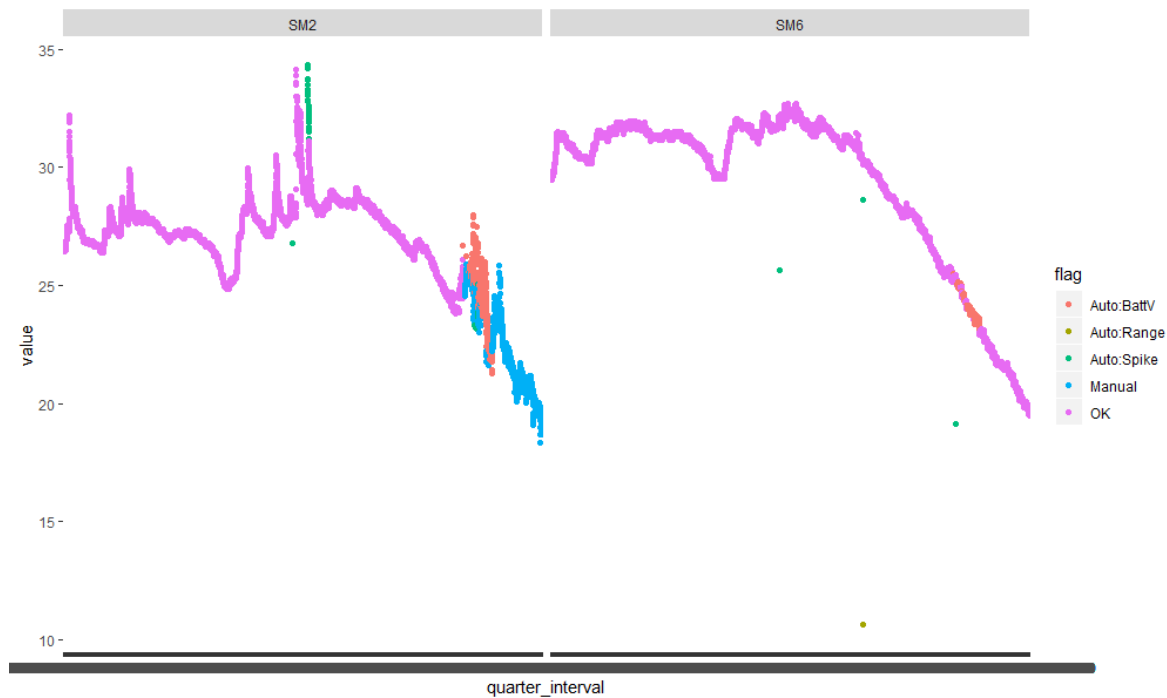By Alexander Engels and Lars Dammann

Idea: most credible neighbor approach

- We focused on data from 2018 and soil moisture → high correlation between boxes:
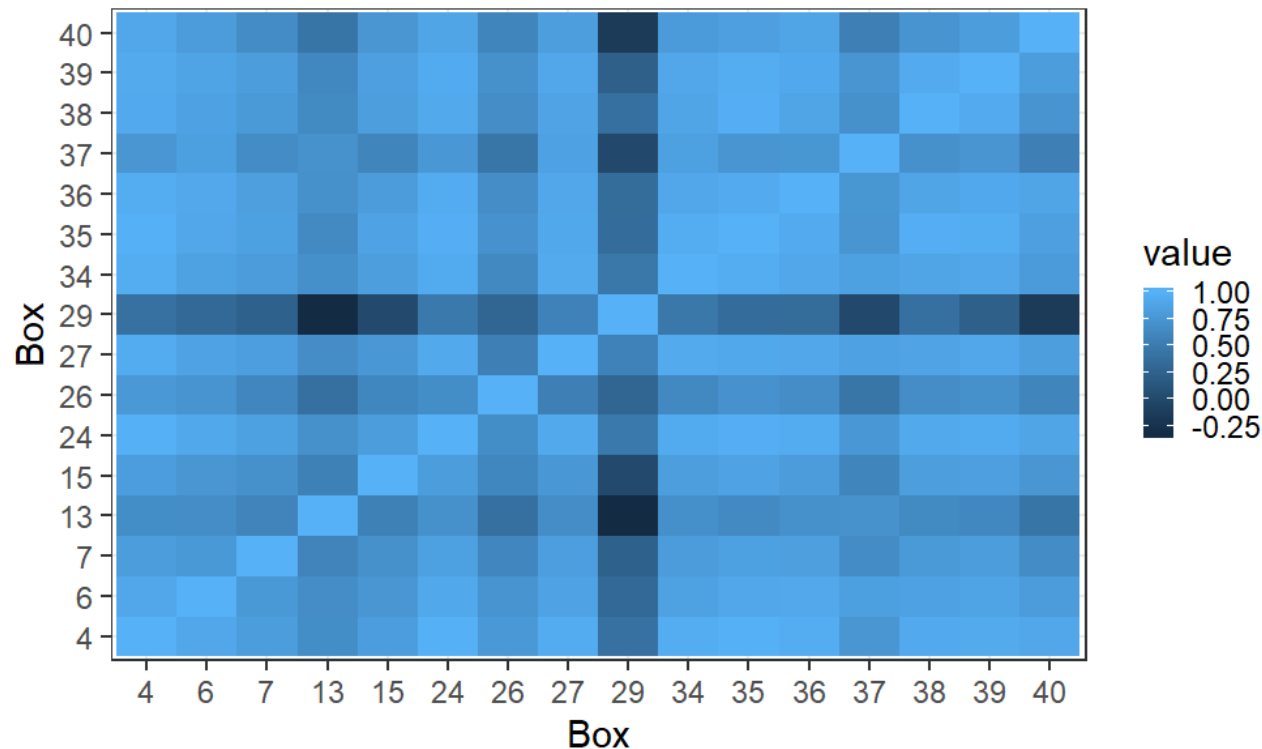
Idea: most credible neighbor approach

- Correlation between sensors that are okay is high as long as both are okay
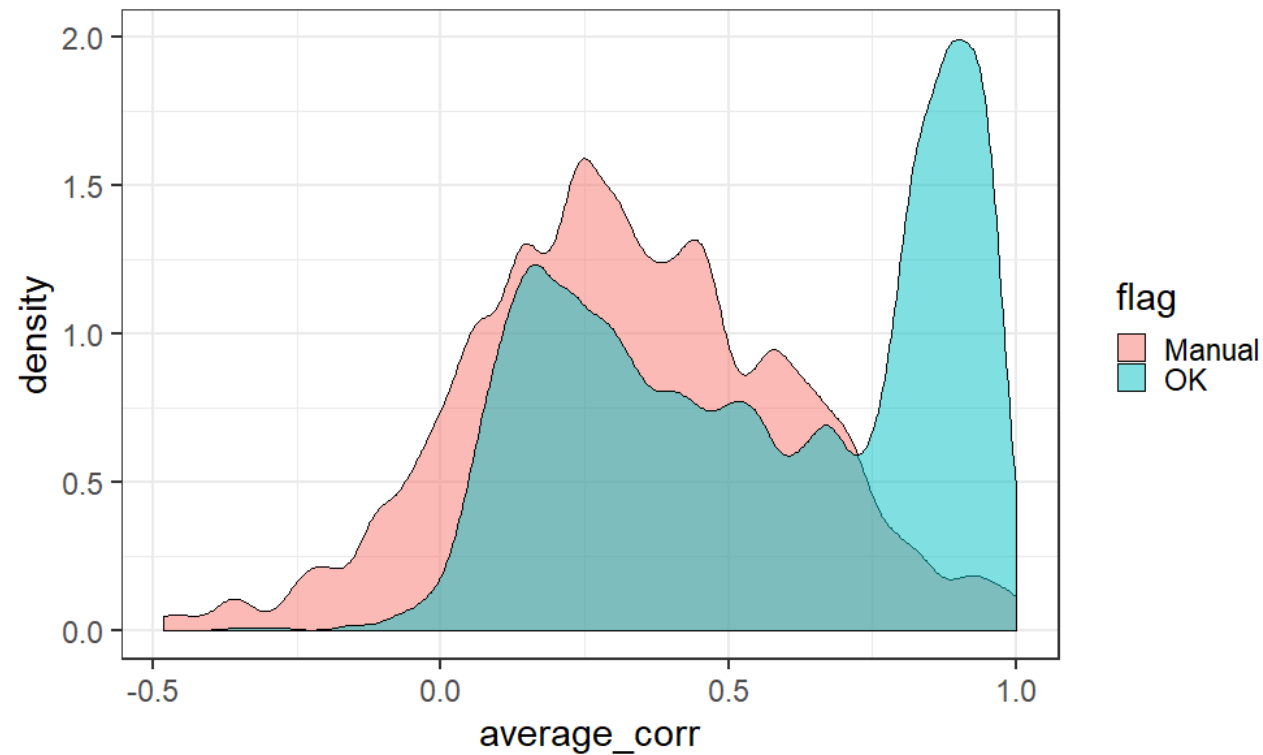
Idea: most credible neighbor approach

- Approach:
    1. Detect most credible box neighbors (high correlation in average sensory output) → k=3
    2. Of k*6 Sensors: select the best l=3 sensors (highest correlation with sensor of interest). Determine average correlation for each day chunk
    3. Use cluster algorithm to differentiate between low vs. high correlated sensors (high correlated ones ought to measure sth. meaningful)

Idea: most credible neighbor approach

- First result: average corr. Differentiates between OK and Manual flags

Idea: most credible neighbor approach

- Limitations:
    - Cluster algortihms not tested
    - Room for improvement: e.g. individual correlations with each credible neighbor or max. correlation
    - Temporal neighbors
    - Correlation with temperature (expected negative cor.) as another valid predictor