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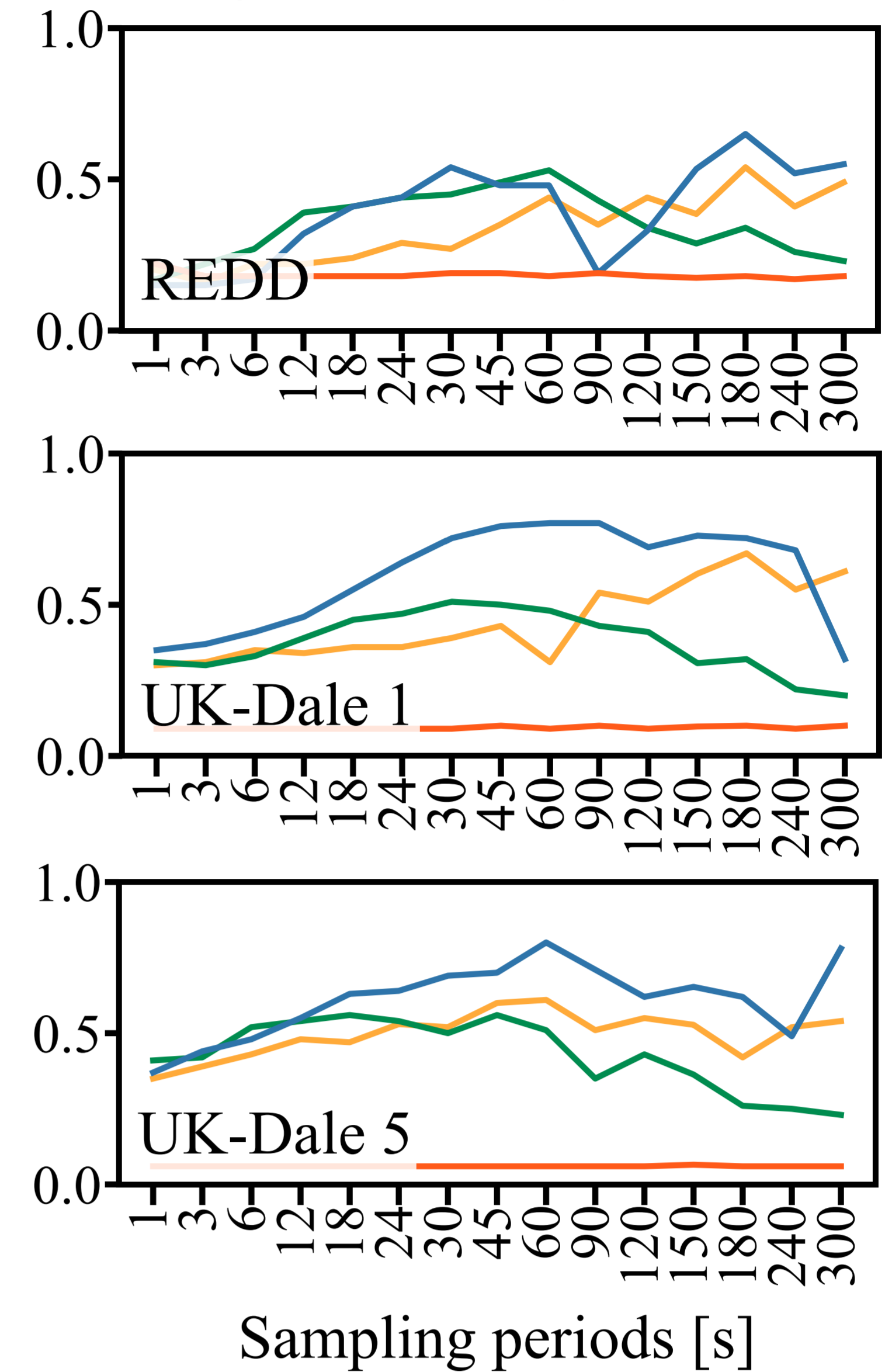
MOTIVATION

- Input data collections (e.g. public data sets) differ
 - Structural differences
 - Household intrinsic differences
- Complicates comparison of published results
 - Results have been shown to be influenced by input data differences
- Complicates further evaluations
 - Can any household work with the same algorithm?
 - Which algorithms are suited for which circumstances?
 - Under which circumstances are algorithms tested?

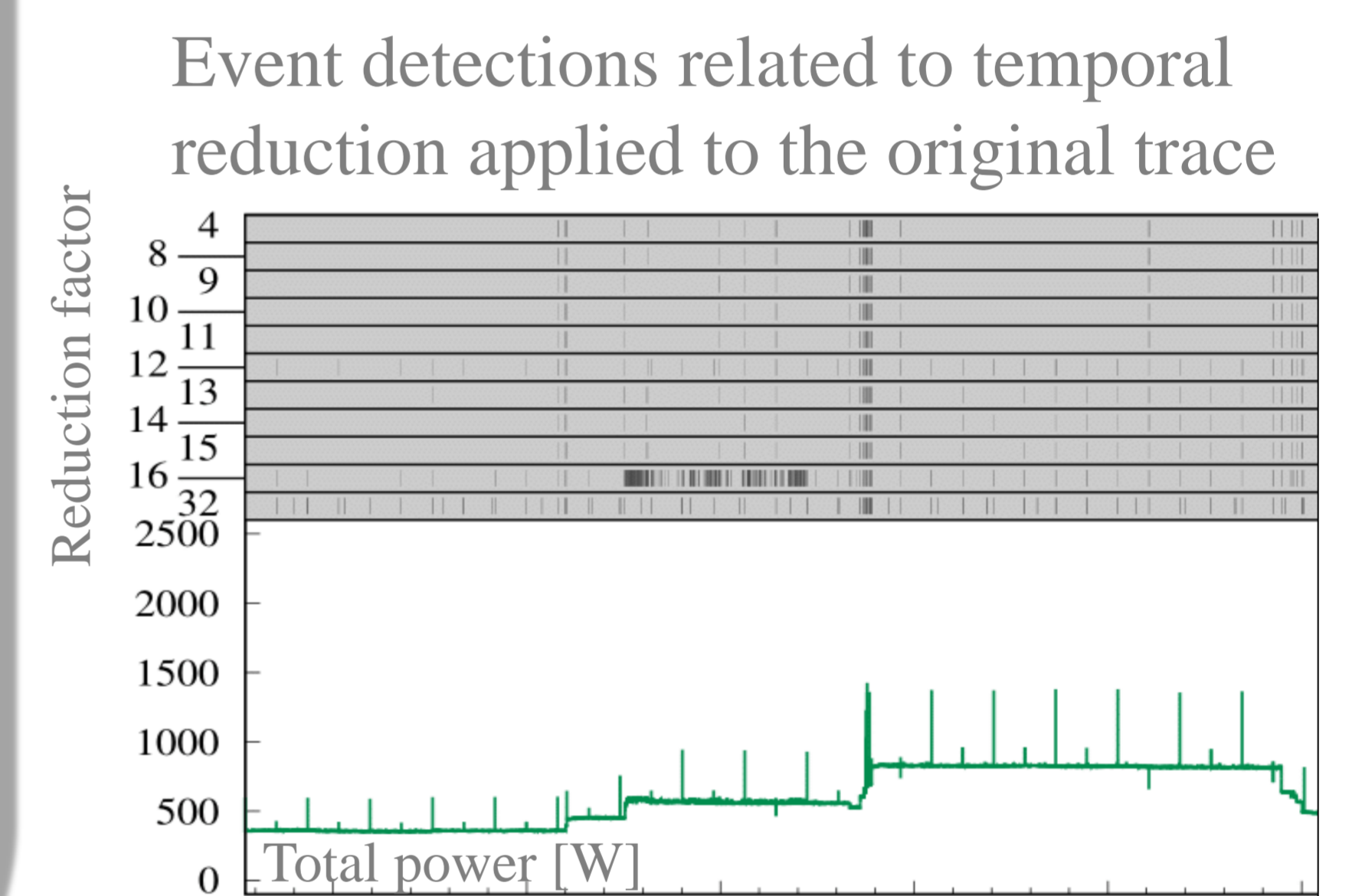
INITIAL RESULTS

- Temporal resolution evaluation
 - Lower impact than further difference
 - Preserves impact of further characteristics
 - Confirmation on simplified data requires

F1 score for decreasing temporal resolution
On three dish washers



HOW DO INPUT DATA CHARACTERISTICS CONCERNING TEMPORAL RESOLUTION, DEVICES AND THEIR USAGE IMPACT NILM RESULTS?



METHODOLOGY

- Identification of Data Characteristic Differences
- Variation possibility assessment for characteristics
- Evaluation of the impact on load disaggregation results
- Verification on realistic public data sets

CHALLENGES

- Currently highly-distributed knowledge
- Number of differences difficult to assess
- Interdependencies between characteristics
 - During variation
 - During evaluation

ENVISIONED CONTRIBUTIONS

- Knowledge about data characteristics
 - Value ranges
 - Metrics
- Knowledge about interdependencies
 - For adaptation
 - For evaluation
- Impact knowledge concerning disaggregation results

