

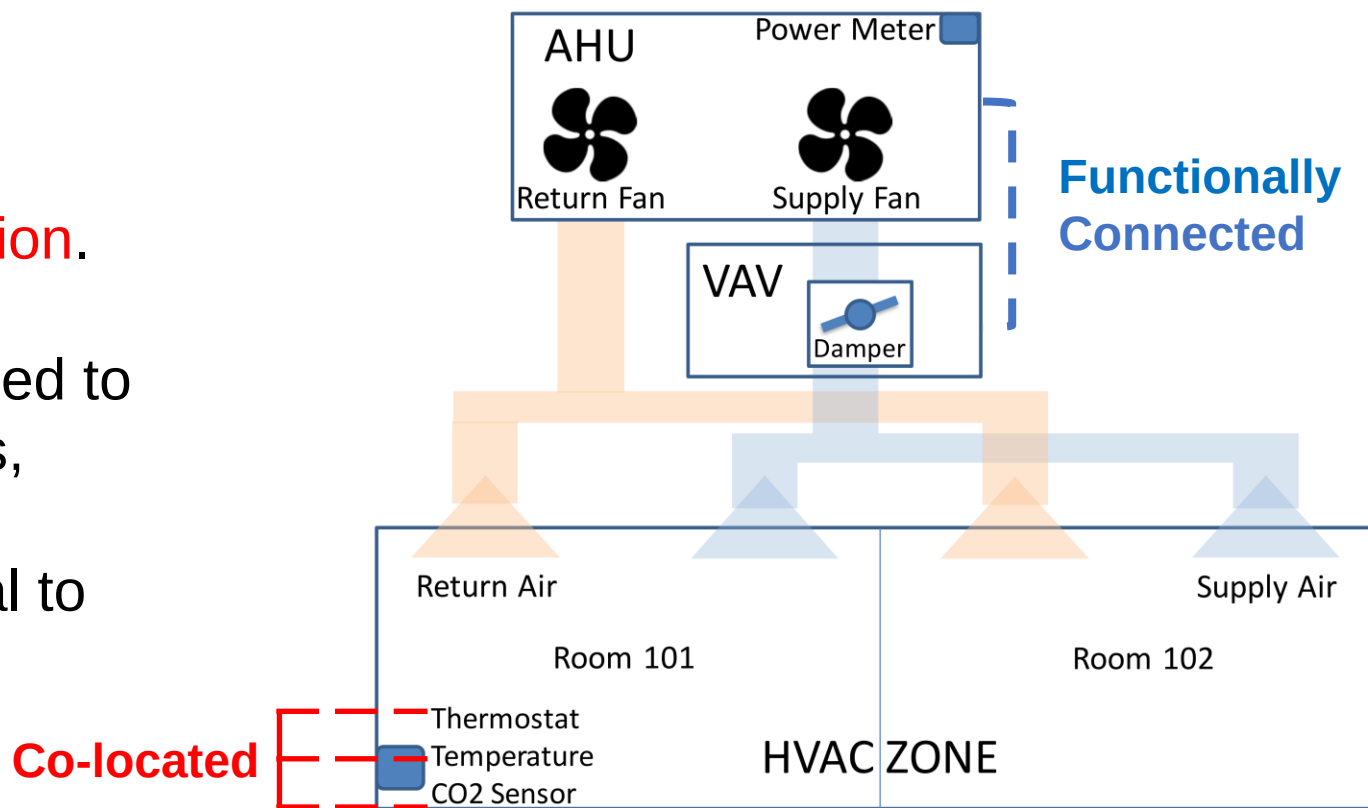
Relation Inference among Sensor Time Series in Smart Buildings with Metric Learning

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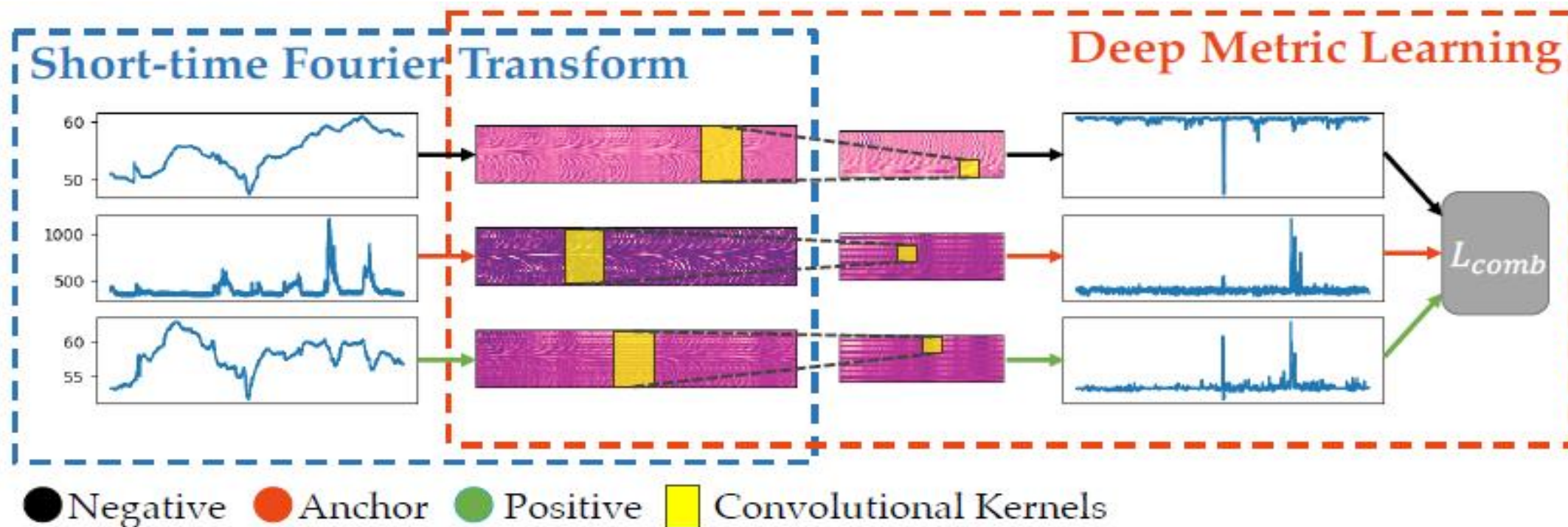
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We focus on two kinds of relationships: 1) **functional relation** and 2) **spatial relation**.

Related sensors are exposed to the same real-world events, thus exhibiting correlated changes. But it is non-trivial to detect these changes.



Methodology and Results



For functional relation inference, the average accuracy of our model is 95.81%, while the best baseline reaches 91.44%.

For spatial relation inference, the average accuracy of our model is 88.61%, while the best baseline only reaches 67.93%