

# Simple surface climate models for modelling weathering effects on wooden surfaces

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# Summary

- Weathering of building facades is largely dependent on micro scale meteorology
- Simple models to calculate surface meteorological conditions based on standard measurements from a weather station.
- Validated against more sophisticated numerical models (WUFI)

Figure 1. Uneven weathering of façade.

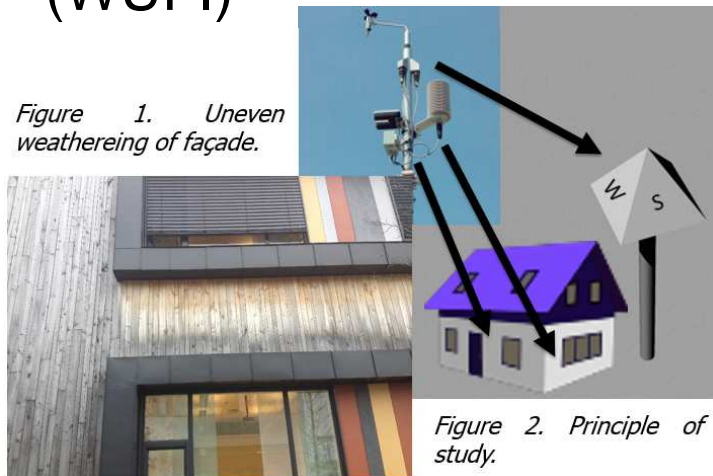
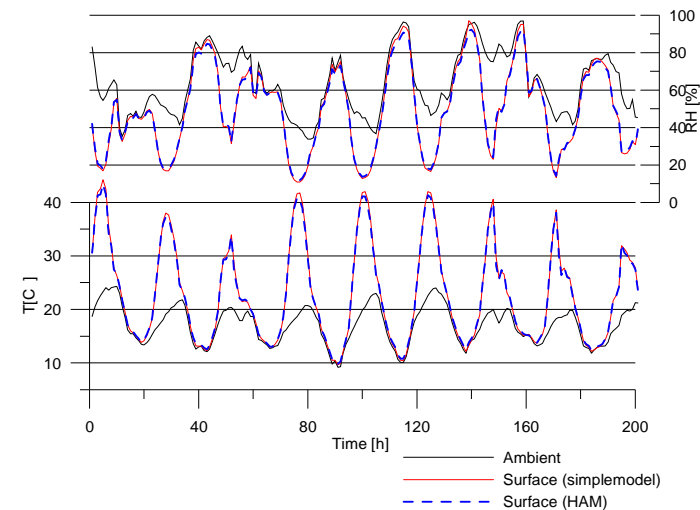
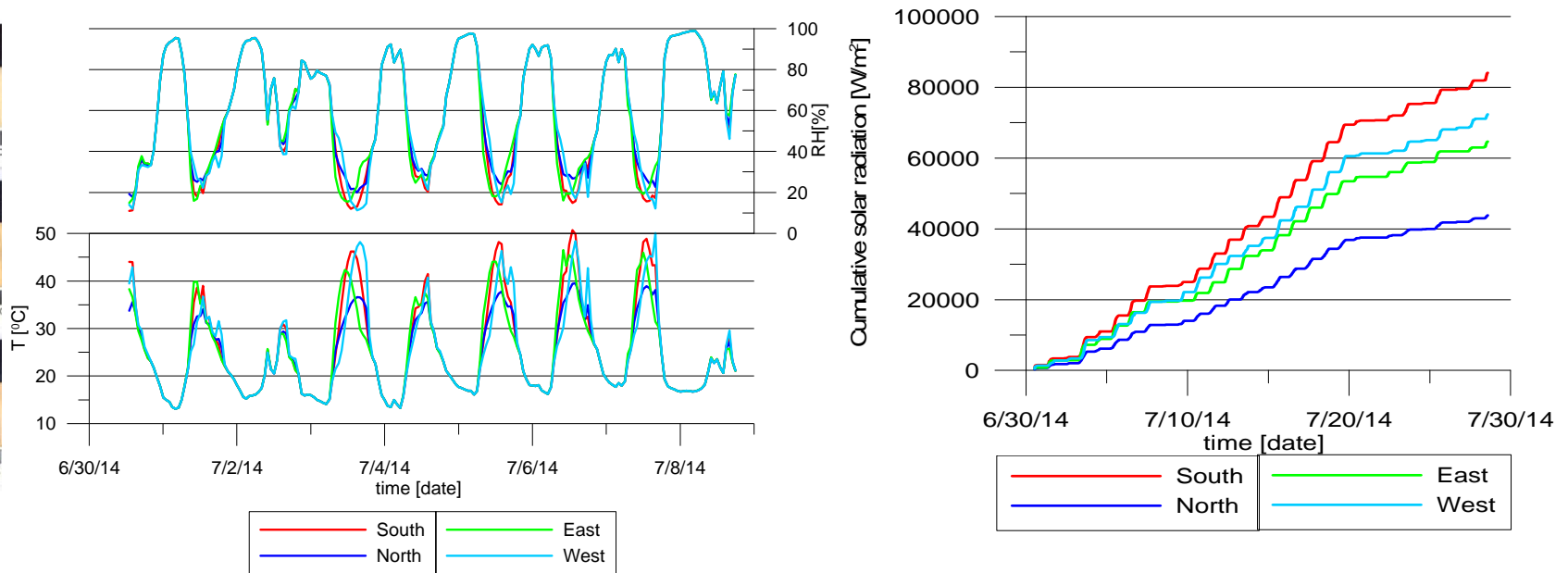


Figure 2. Principle of study.



# Summary

- Micro scale models are applied to a Round Robin experiment on think wooden samples exposed in 21 different locations
- Results from San Michele, Italy



# Summary

- Models are also applied to a 3D digital building model situated in Oslo, Norway
- Hourly surface meteorological conditions are simulated
- Models will be used in further weathering modelling and simulation

