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## 78: Evaluation Methods for Obstacle Resolved Modelling

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**Tuesday, August 07, 2018**

**03:30 PM - 05:30 PM**

📍 *City College of New York - Shepard Hall - Great Hall*

Obstacle resolved modelling of urban areas using CFD, RANS or LES models is increasingly applied as a tool for urban research. Model results are used to base relevant planning decisions on the model's outcome. However, similar to measurement or morphology data, which include some uncertainty, model results are not completely correct; their reliability depends on several factors, including the theoretical basics and simplifications made, the realization as a computer code, and last not least the model set-up and thereby the user applying the model. However, model results are not always challenged but often assumed to be right and used without uncertainty estimates. Reliable evaluation strategies are required to ensure an adequate use of model results.

The presentation will outline an evaluation concept for obstacle resolved models and show where the evaluations need to differ for the different intended applications (climate average values, extreme situations, frequency distribution of e.g. temperatures). Different examples will be shown, for instance for the evaluation of flow fields used for dispersion studies, or constructed test case solutions to assess longwave radiative fluxes between buildings. The demands on comparison data quality will also be discussed.

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