



Grid sensitivity and Turbulence Representation related to local Weather Prediction

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Local weather forecast models are becoming increasingly important, and are often used in nested systems e.g. related to aviation safety. In such cases turbulence prediction is a very important aspect of the modelling. The accuracy of such modelling is critical, and depends mainly on two aspects: the turbulence modelling and the grid resolution.

In this contribution the gridding aspect is especially addressed. We use a three-dimensional model hill as a test example, and relate the resolution to typical full scale representation used in local forecast models. This makes it possible to quantify resolution effects related to turbulence prediction accuracy, and can also quantify the ability to predict mountain wave effects properly.