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*Supplement of*

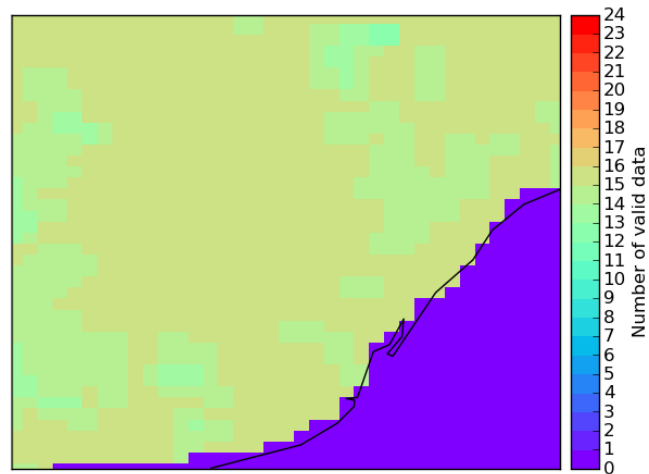
## **Advantages of using a fast urban boundary layer model as compared to a full mesoscale model to simulate the urban heat island of Barcelona**

**Markel García-Díez et al.**

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**Figure 1.** Number of valid data found inside the study period (June-September 2011) in the MODIS datasets MOD11A1 and MYD11A1 (8 day averages of land surface temperatura) for each gridpoint.



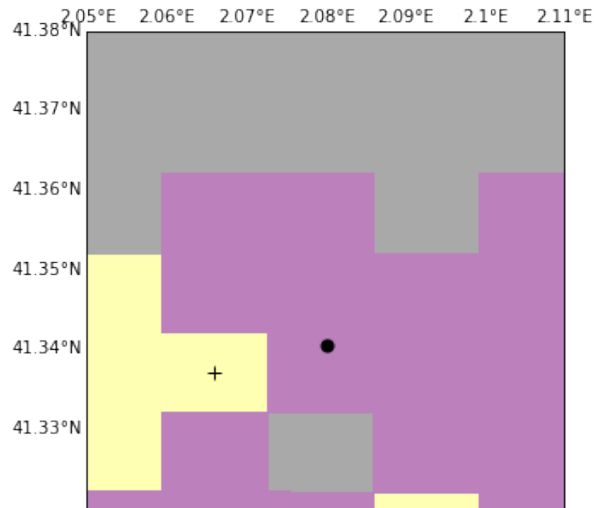
## 1 Introduction

The following are the captions of the extra figures which are mentioned in the text of the article. These figures allow to check for the number of data points used from to elaborate the satellite land surface temperature, and to justify the representative gridpoints chosen to evaluate WRF instead of the nearest neighbours.

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## 2 Figures

**Figure 2.** WRF land use, as derived from CORINE dataset, together with the location of the rural station (black dot) and the representative gridpoint chosen for the evaluation (black cross). The yellow color represents a rural land use category, while the rest represent urban categories.



**Figure 3.** As in supplementary figure 2, but for the urban station. In WRF; the station is located over industrial terrain, but the high density urban is more representative of the actual land use in the station location.

