



Study of a conditioned climatology for stable nights

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The understanding of the dynamics of the nocturnal boundary layer is still far from perfect. Specific field experiments are performed or statistical analysis are made on selected sites. Here another approach is taken. Data for the period 1996-2005 from a normal Automatic Weather Station (AWS) -belonging to the Catalan Met. Service- are analyzed, taking only temperature, humidity and wind averaged every 10 minutes. The data base is filtered to select data corresponding to situations with clear skies and weak synoptic winds. The resulting dataset is studied with a number of methods. Several patterns are found that shed some light on the wind and temperature evolution during the night, quite independently of the time of the year.