



## Heat waves in the Canary Islands

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In the summer of 2004 three chained heat waves (the strongest ever registered since records began) affected the Canary Islands causing tens of deaths and many health problems on most vulnerable sectors of the population. While short (one or two day long) and geographically localized warm spells have been relatively usual in the islands at nearly any time of year, those of longer duration and geographic extension appear to be more and more common and intense, especially in spring and summer where these phenomena were rare before 2004. A statistical criterion is adopted so as to bring to light past heat waves from climatic database. The cases so obtained are arranged by its force –which is assumed to be strongly linked to the average temperature and the persistence of the period– and the statistical tendency is studied. An attempt to forecast changes in the probability of heat wave occurrences in the archipelago is made. Finally, four main synoptic weather patterns have been identified as direct causes of these warm spells. As none of them seems to be more frequent in recent years than in the past, the reason of the increase in intensity of the heat waves affecting the Canary Islands as being some kind of change in atmospheric circulation has to be ruled out.