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Spatial analysis of UVB Values in Iberian Peninsula by GIS

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Ultraviolet radiation B values had been recorded in Iberian peninsula by two different networks managed by INM from last decade until today. Four spectrophotometer Brewer MkIV and 17 broadband piranometer YES UVB-1 provided a basis for spatial representations. Nevertheless, the complexity of peninsular Spain, with sharp changes in cloud coverage due to orographic effects, high central plateaus and several mountain ranges with peaks higher than 3.000 metres ASL, provided some difficulties that have to been solved when mapping radiation. A tentative use of a Geographic Information System, containing information from topography and global radiation to deal with those problems is developed. As study case, the long period of warm temperatures experienced by Europe in the summer of 2003 has been selected. The links between radiation and the extreme temperatures and the delineation of the characteristics out of normal of the radiation from considered “normal levels”, if they appear, are goals of this paper.