

1 **African dust outbreaks over the western Mediterranean**
2 **basin: 11-year characterization of atmospheric circulation**
3 **patterns and dust source areas**

4
5 **P. Salvador¹, S. Alonso^{2,3}, J. Pey^{2,4}, B. Artíñano¹, J.J. de Bustos³, A. Alastuey²,**
6 **X. Querol²**

7 [1]{ Environmental Department of the Research Center for Energy, Environment and
8 Technology (CIEMAT) – Unidad Asociada en Contaminación Atmosférica CSIC-CIEMAT.
9 Avenida Complutense 40, 28040 Madrid. Spain }

10 [2]{ Institute of Environmental Assessment & Water Research (IDÆA-CSIC). c/ Jordi Girona
11 18, 08034 Barcelona. Spain }

12 [3]{ Centro de Investigación Atmosférica de Izaña, Agencia Estatal de Meteorología
13 (AEMET) c/ La Marina 20, Santa Cruz de Tenerife. 38071, Spain }

14 [4]{ Aix-Marseille Université, CNRS, LCE FRE 3416, Marseille, 13331, France }

15
16 **Supplementary material**

17 Figure S01. Composite sea level pressure (hPa) representing circulation types leading to ADO
18 over the western Mediterranean basin.

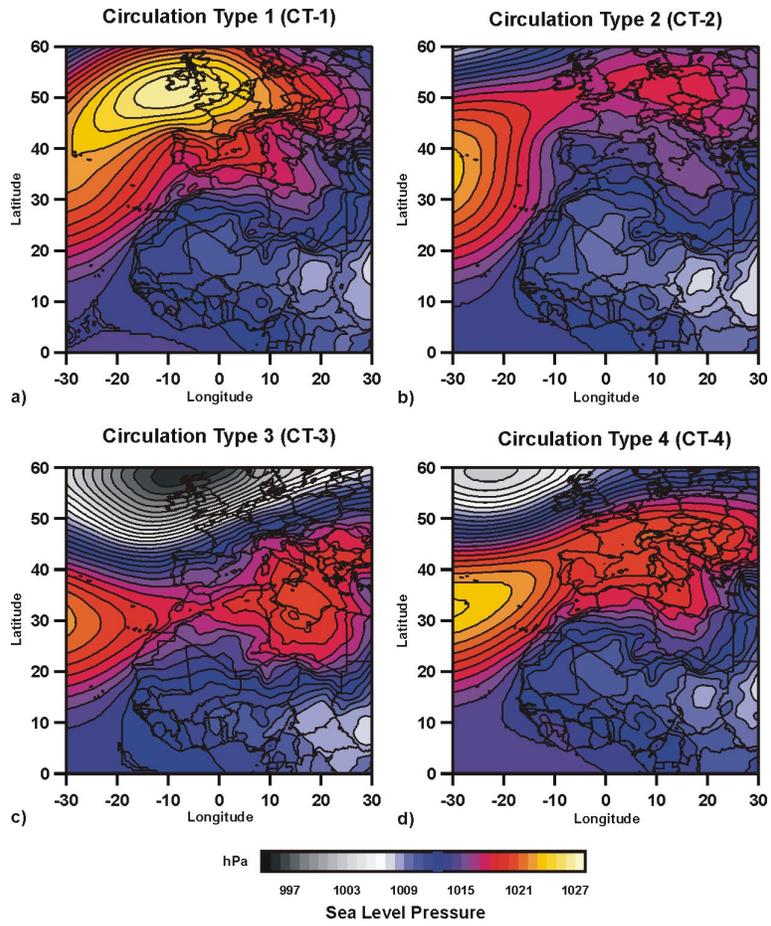
19
20 Figure S02. Composite 700 hPa geopotential height (m) representing circulation types leading
21 to ADO over the western Mediterranean basin.

22
23 Figure S03. Redistributed concentration fields (RCF) for dust load in PM10, during the
24 seasons with a higher frequency of occurrence for each circulation type leading to African
25 Dust Outbreaks (ADO) over the western Mediterranean basin in the 2001-2011 period.

26

- 1 **Supplementary data sets.xlsx** enclosed in the Supplementary material.zip archive contains
- 2 Tables S1 and S2.
- 3

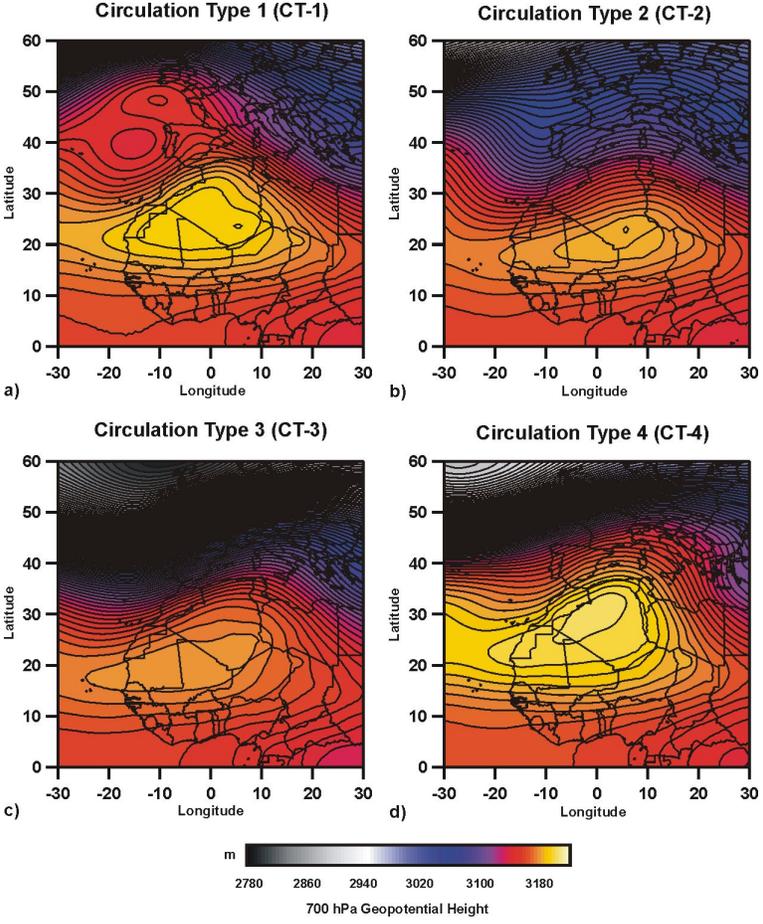
1 Figure S01.



2

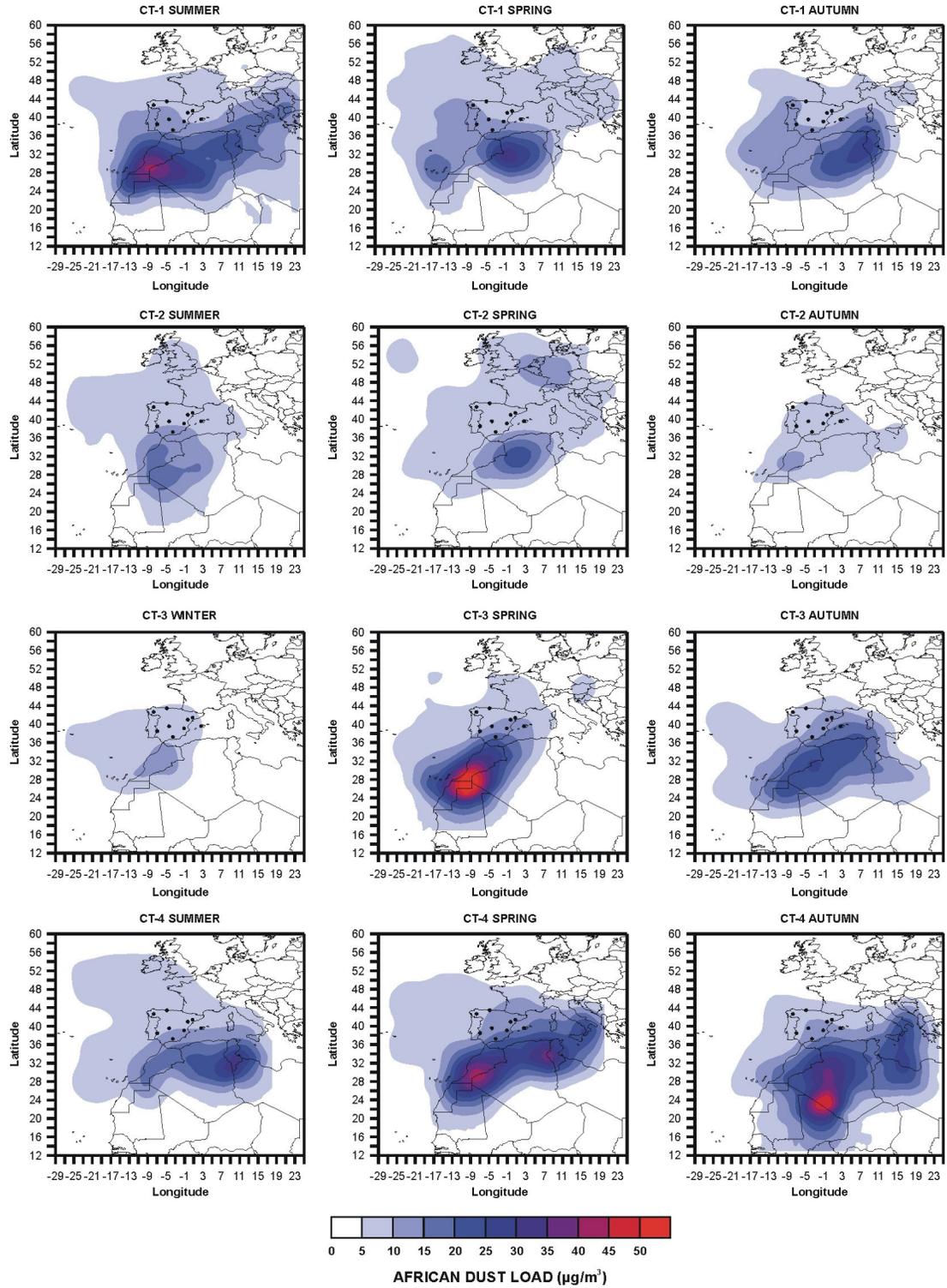
3

1 Figure S02.



2
3

1 Figure S03.



2