



Supplement of

The climatology of dust aerosol over the arabian peninsula

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1 **Supplement material**

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3 Table S1: Geographical location and time records for the observational sites in the Arabian
4 Peninsula.

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Station	Latitude	Longitude	Altitude (asl*)	AERONET time records	Satellite Time records
Kuwait Univ.	29° 19' 30" N	47° 58' 15" E	42 m	2008-2012	2006-2012
Solar-Village	24° 54' 25" N	46° 23' 49" E	764 m	1999-2012	2006-2012
Mezaira	23° 08' 42" N	53° 46' 44" E	204 m	2006-2012	2006-2012

6 * above seal level

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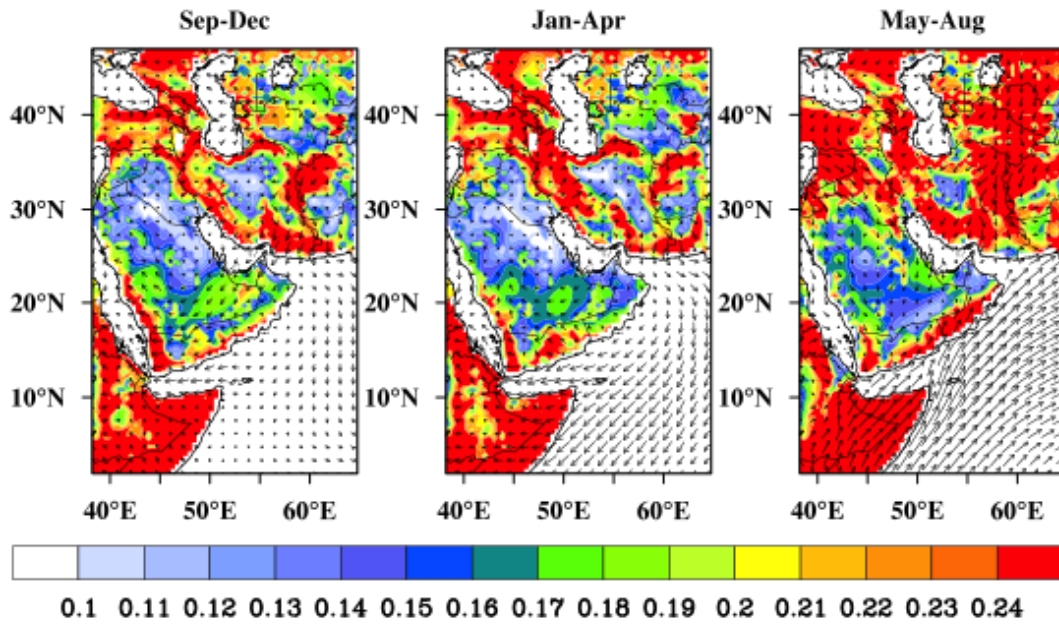
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26 Figure S1: Climatology (seasonal average) of the friction velocity in ms^{-1} , based on 2000-2012
27 time interval

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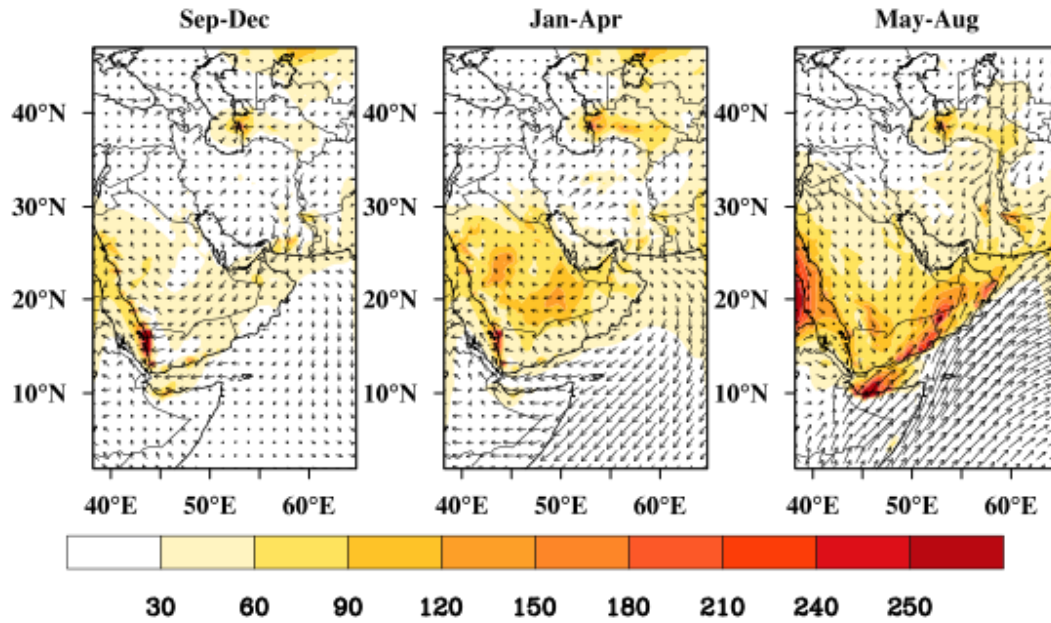
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43 Figure S2: Climatology (seasonal average) of the atmospheric surface dust (with diameter less
 44 than $10 \mu\text{m}$) concentration in ($\mu\text{g m}^{-3}$) based on 2000-2012 time interval. The legend is
 45 concentration in $\mu\text{g m}^{-3}$

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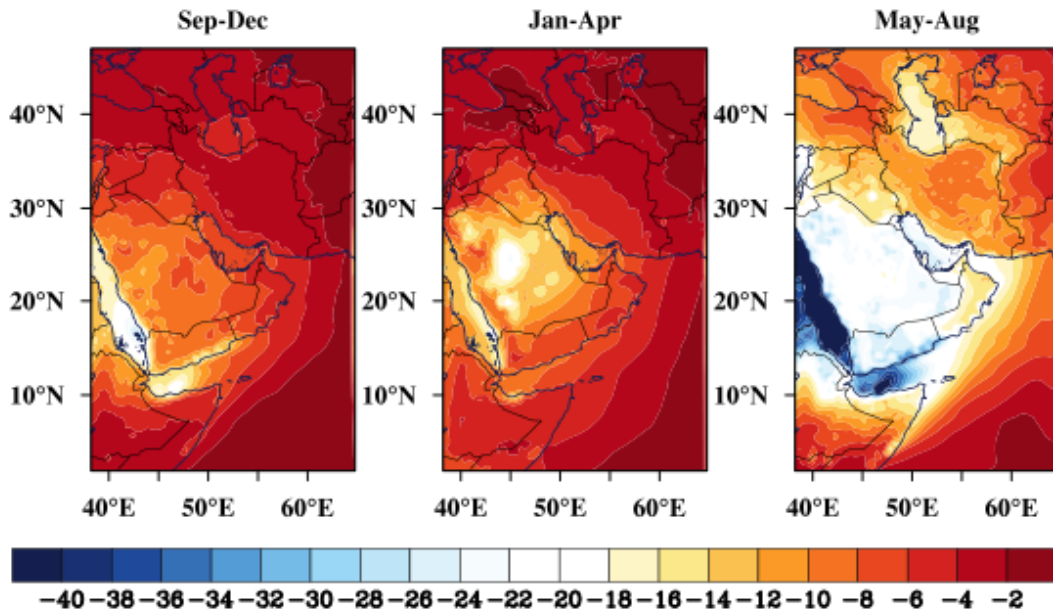
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58 Figure S3: Climatology (seasonal average) of RegCM4's surface radiative forcing (W m^{-2})
59 based on 2000-2012 time interval

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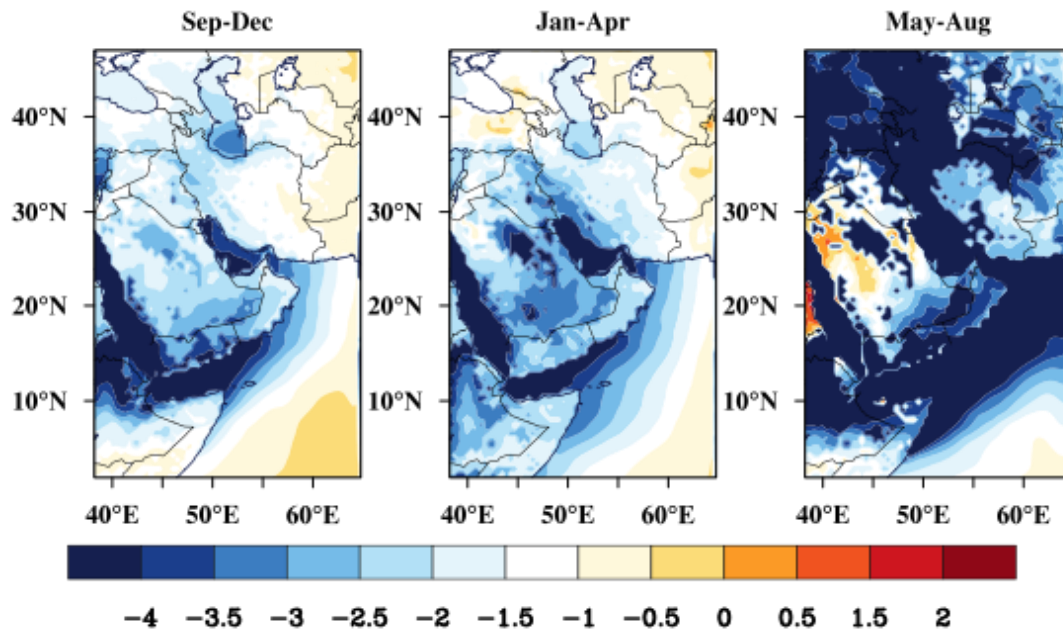
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75 Figure S4: Climatology (seasonal average) of RegCM4's TOA radiative forcing (Wm^{-2}) based
76 on 2000-2012 time interval.

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