



## **The tropospheric ozone variation over Arabian sea during pre-monsoon**

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Tropospheric ozone has mainly two sources: photochemically produced during pollution events and transported from the stratosphere towards the troposphere. Recently the tropospheric ozone retrieved by applying SCIAMACHY limb nadir matching method has been improved. Tropospheric ozone is observed to have an enhancement over the Arabian sea (AS) during pre-monsoon (March to May) every year from SCIAMACHY limb nadir matching retrieved database. The focus of this work is to understand the sources and transport mechanisms of tropospheric ozone over Arabian sea by using SCIAMACHY tropospheric ozone data, MACC reanalysis model data and back trajectory model. The variation and possible influencing factors are discussed during this study.