

MegDEtH NEWSLETTER #2, September 2022

Intro

The Mineralogy of Dust Emissions and impacts on Environment and Health (MegDEtH) is a project currently implemented at the Research Center for Atmospheric Physics and Climatology at the Academy of Athens, that has received a funding of 189,715.00 € from the Hellenic Foundation for Research and Innovation. The duration of the project is 36 months, starting April 2021 and the main project focus is on:

- Deriving a mineralogical map of Saharan dust sources from hyper-spectral and multi-spectral satellite sensors.
- Constraining dust modeling simulations with satellite observations.
- Quantifying the impacts of dust mineralogy on radiative transfer, cloud formation, ocean fertilization and human health.

Project News

1. Publications & Conference Presentations

- "Development of a Dust Source Map for WRF-Chem Model Based on MODIS NDVI" by Spyrou, C.; Solomos, S.; Bartsotas, N.S.; Douvis, K.C. and Nickovic, S. has been published in MDPI : Atmosphere journal. (<https://www.mdpi.com/2073-4433/13/6/868/pdf>)
- "Development of a dynamic dust-source map for regional dust models based on MODIS NDVI" by Stavros Solomos et al. was presented in EGU General Assembly 2022 in Vienna, Austria, 23–27 May 2022.
- "Assimilation of satellite retrievals for dust modeling applications" by Stavros Solomos, Christos Spyrou, Nikolaos Bartsotas, Petros Katsafados and Slobodan Nickovic was presented in IRS 2022 (INTERNATIONAL RADIATION SYMPOSIUM 2022), in Thessaloniki, Greece, 4-8 July 2022.
- Dr. Stavros Solomos presented "Physical processes of desert dust in the atmosphere" in Balkan Physical

Union II Congress, held in Serban Academy of Sciences and Arts from August 28th until September 1st, 2022.

- "Development of assimilation schemes for the representation of dust in LAPS and WRF modeling systems based on MODIS and MSG satellite retrievals" by Stavros Solomos et al, was presented in EMS Annual Meeting 2022, 4-9 September 2022 in Bonn, Germany

2. Dissemination & Website Updates

A flyer of the project was designed, printed out and shared during the European Geophysical Union General Assembly 2022 in Vienna, Austria. The major project updates were also posted under the section "Project News" in www.megdeth.gr.



3. Group Member additions

Dr. Kostas Douvis joined the Research Team in April 2022 and currently our group consists of

- Dr. Stavros Solomos**, Principal Investigator
- Dr. Nikolaos Bartsotas**, Post-Doc Researcher
- Dr. Christos Spyrou**, Post-Doc Researcher
- Dr. Kostas Douvis**, Post-Doc Researcher
- Dr. Olga Sykioti**, Geological Remote Sensing Expert
- Dr. Vassilis Amiridis**, Atmospheric R.S. Expert

Reach us at

www.megdeth.gr

info@megdeth.gr

Twitter: @MegDEtH1