



MegDEth NEWSLETTER #1 October 2022

Mineralogy of Dust Emissions and impacts on Environment and Health (**MegDEth**) project is being implemented at the Research Center for Atmospheric Physics and Climatology at the Academy of Athens since April 2022. Our main hypothesis for the project is that dust mineralogy is more important than currently acknowledged. The project has received a funding of 189,715.00 € from the Hellenic Foundation for Research and Innovation. The duration of the project is 36 months (April 2021-March 2024).

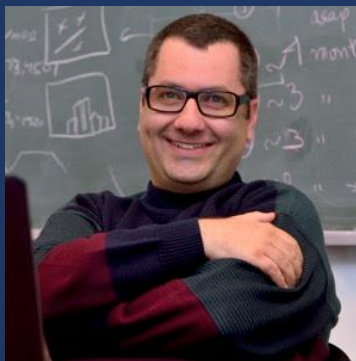
The main tasks of MegDEth are:

- (i) Derive a mineralogical map of Saharan dust sources from hyperspectral and multi-spectral satellite sensors
- (ii) Constrain dust modeling simulations with satellite observations
- (iii) Quantify the impacts of dust mineralogy on radiative transfer, cloud formation, ocean fertilization and human health

Project News:

1. Establishment of the research group (RG) and the scientific advisory board (SAB)

The Research Group is composed of:



Dr. Stavros Solomos (PI)



Dr. Christos Spyrou



Dr. Nikolaos Bartsotas

The Scientific Advisory Board (SAB) is composed of:



Dr. Olga Sykioti

Expert on Physical Sciences, Optics and Pattern Recognition Algorithms



Dr. Vassilis Amiridis

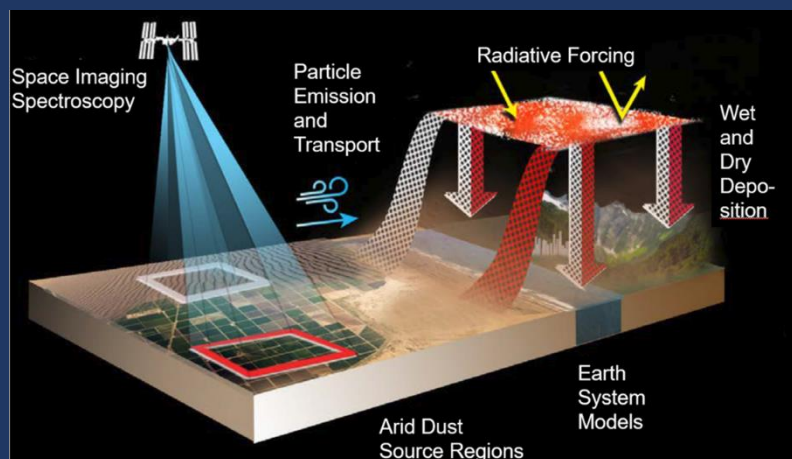
Expert on Natural Sciences, Optics Physics, and Atmospheric Remote Sensing

2. Development of the project webpage

The project webpage is found here: <http://www.megdeth.gr/>. The webpage will host detailed information regarding the members of MegDEth project, earlier relevant publications of the group, project journal and conference publications and project news.

3. Collaboration with NASA EMIT mission

An important update regarding the scientific tasks of MegDEth is the launching of NASA's EMIT satellite onboard the ISS platform. The purpose of this mission is to retrieve the mineralogical information of dust using hyperspectral observations. The launch is scheduled for 9 June 2022. This mission was not foreseen during the proposal period and certain tasks of our project will now be facilitated by this new instrument. Such collaboration is expected to bring significant added value to our project. Therefore, we have already communicated with the corresponding PI from NASA and we have agreed on a close collaboration between our projects.



Earth Surface Mineral Dust Source Investigation (EMIT)