Announcement of a topic for:

Seminar Research   **X**
Seminar Methods   **X**
Master Theses   **X**   (please mark one or more)

Topic	AERONET aerosol typing versus lidar-derived dust fraction at Cape Verde
Release Date	15 July 2024
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Description:	Height-resolved lidar observations offer detailed insight into the occurrence of different aerosol types over a measurement site. However, they are not nearly as widespread as passive observations of columnar aerosol optical properties with sun photometers. The aim of this work is to reconcile lidar-based aerosol typing at a site that is frequently affected by Saharan dust, biomass-burning smoke, and marine aerosols (Gebauer, 2024) with an aerosol-type classification based on sun-photometer observations (Shin et al., 2019). This will enable a better comparison of columnar parameters from lidar observations (such as the dust fraction) with an aerosol-typing retrieval that features different mixtures of mineral dust and other aerosol types.
Literature:	Gebauer, H.: Characterization of the annual cycle of aerosol and clouds over Mindelo (Cabo Verde) by means of continuous lidar observations, Master Theses, Leipzig University, 2024. Shin, S.-K., Tesche, M., Noh, Y., and Müller, D.: Aerosol-type classification based on AERONET version 3 inversion products, Atmos. Meas. Tech., 12, https://doi.org/10.5194/amt-12-3789-2019, 2019.