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Water column attenuation coefficient estimations in Alqueva reservoir

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The vertical structure of the underwater radiative absorption plays an important role in the thermal dynamics of the water surface layer and consequently on the energy budget at the water-lake interface. Thus, a better estimation of the irradiance at different levels is relevant to understand the lake-air interactions. The main purpose of this dataset of measurements is to estimate the spectral attenuation coefficient of the water column. The apparatus exploited in this work are composed of an optical cable linked to a portable FieldSpec UV/VNIR (ASD). This version has hemispherical field-of-view (FOV) of 180º allowing for measurements under all range of solar zenith. In situ water spectral reflectances were also obtained to help in the validation of satellite water leaving reflectances obtained from satellite spectroradiometers. It is intention of the team to develop an algorithm to derive the attenuation coefficient from satellite data in this reservoir.