

# OCEAN OPTICS XXIV

Valamar Lacroma Dubrovnik Hotel | Dubrovnik, Croatia | October 7–12, 2018

<https://oceanopticsconference.org>

Monday, October 8

Poster Session 1

16:00–18:00

## **Poster 248**

### **SPATIO-TEMPORAL PATTERNS OF WATER BODIES AND SUSPENDED PARTICLES IN LOWER MEKONG BASIN FROM HIGH SPATIAL RESOLUTION IMAGERY**

The availability of High Resolution Imagery (spatial, spectral, and radiometric) with an increased time of revisiting (Landsat-8 and now Sentinel-2) opens the way to a more detailed observation of coastal zones and inland waters and offers an incomparable tool for water composition monitoring such as the suspended particulate matter (SPM). Quantifying the SPM budget in the Lower Mekong Basin (LMB) including the Mekong river, the Tonlé Sap lake and the Bassac delta from remote sensing analysis constitutes an important challenge as SPM is a key parameter in numerous economic and societal aspects such as coastal management, navigation ability, erosion and accumulation of sediments, transport of pollutants, fisheries productivity, and drinking water resource, etc. However, this budget is still not properly understood. The main reasons are that: 1) most of standard atmospheric corrections over coastal and inland waters may fail and 2) coastal and inland waters are optically complex; as a consequence it impacts the accuracy of SPM algorithms and therefore the retrieval of accurate SPM values from satellites. The main objective of the VolTransMESKONG (CNES/TOSCA) project consists in improving our understanding of the spatio-temporal patterns changes of 1) water body extents including flooding event or dam impacts and 2) SPM for rich turbid environments exceeding 1000 NTU for instance.

**Charles Verpoorter**, LOG CNRS 8187 / ULCO, [charles.verpoorter@univ-littoral.fr](mailto:charles.verpoorter@univ-littoral.fr), 251344124

Hubert Loisel, LOG, [hubert.loisel@univ-littoral.fr](mailto:hubert.loisel@univ-littoral.fr)

Dat Dinh Ngoc, LOG, [dndat.gis@gmail.com](mailto:dndat.gis@gmail.com)

François Schmitt, LOG, [Francois.Schmitt@univ-lille1.fr](mailto:Francois.Schmitt@univ-lille1.fr)

Vincent Vantrepotte, LOG, [Vincent.Vantrepotte@univ-littoral.fr](mailto:Vincent.Vantrepotte@univ-littoral.fr)

David Dessailly, LOG, [david.dessailly@univ-littoral.fr](mailto:david.dessailly@univ-littoral.fr)