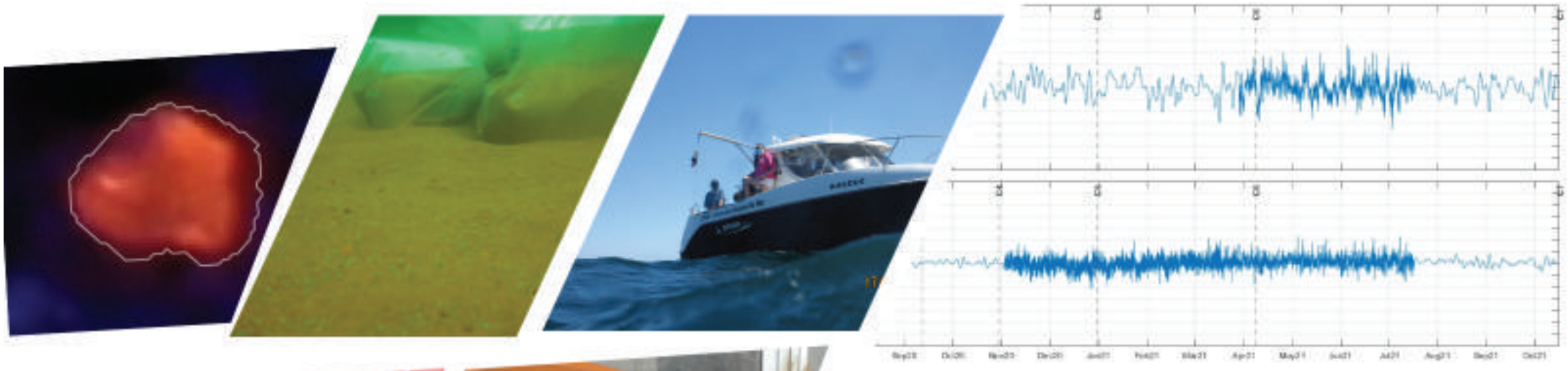
SOLID EARTH SEMINARS

KNOWING SEDIMENT TRANSPORT USING FLUORESCENT TRACERS – AN EXAMPLE FROM AN EXPERIMENTAL WORK OFFSHORE QUARTEIRA, ALGARVE, PORTUGAL



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WHAT'S THIS ABOUT?

Sediment transport knowledge is very important for coastal area management. This presentation describes the results from a sediment fluorescent tracer experiment. This experiment started in August of 2020, with the injection of about 600 kg of tracer sands offshore Belharucas beach (about 5 km to WNW from Quarteira, Algarve, Portugal) at 11 m depth. Following this operation 7 sea missions were undertaken to collect more than 200 seabed sediment samples. Results show minor tracer movement with a maximum displacement of the center of mass from the injection point of 8 m. The highest tracer concentrations are systematically located within a radius of 10 m from the injection point, although concentration decreases over time due to the dispersion of sediments, showing that tracers diffusion prevails over advection.

ZOOM

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