Study of wave impacts on Artha’s breakwater

Subject: Acoustic study of wave impacts on Artha’s breakwater

Start date: January 1, 2017

End date: January 1, 2018

Coordinator: the SIAME

Scientific manager at the SIAME: Benoît LARROQUE

SIAME members involved: Pierre Antoine PONCET, Stéphane ABADIE

Partnership: B. Liquet (LMAP), D. Sous (MIO Toulon), F. Luthon (LIUPPA), D. D’Amico (LIUPPA)

Type of contract: SIAME cross-team incentive-based call for projects

Project description:

Artha’s breakwater located in the bay of Saint-Jean-de-Luz is subject to a very energetic wave climate originating from the bottom of the Bay of Biscay. This structure therefore undergoes violent impacts that can generate impressive splash-up and pressures much higher than those generated by the water heights involved. Although it does not seem likely that the breakwater will rupture under the pressure of a single wave, repeated impacts can damage the stonework and result in micro-cracking. Regular maintenance is therefore essential and is performed by the Departmental Council of the Pyrénées-Atlantiques.