PRELICA (Advanced methodologies for hydro-acoustics design in the naval propeller.)

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1 Introduction.

Generation and propagation of hydrodynamic noise in maritime environment is an active research field of investigation due to its own impact on several numbers of engineering applications including among others, the maritime propeller design (add.picture). A key point is the reduction of underwater noise induced by shipping activities to protect the maritime fauna (the ecosystem life). For instance, in [1], preliminary results of a numerical study for noise prediction of a benchmark propeller in open water/ uniform flow conditions is presented. The main aim of this study is to predict propeller hydro-acoustic performance under cavity conditions.

2 What's PRELICA?

PRELICA (Advanced methodologies for hydro-acoustics design in the naval propeller) was a project co-financed by the European Regional Development Fund, Fruili Venezia Gulia (FVG) region located in Trieste (Italy) in 2014 -2020. The stressed on the development of innovative numerical tools and methodologies aimed at improving prediction of the underwater noise radiated by ships propeller since the early design stage.

References

[1] Savas Sezen, Mehmet Atlar, Patrick Fitzsimmons, Noriyuki Sasaki, Giorgio Tani, Naz Yilmaz, and Batuhan Aktas. Numerical cavitation noise prediction of a benchmark research vessel propeller. *Ocean Engineering*, 211:107549, 2020.