

Journées utilisateur du code DOROTHY – DORTHY users' days.

Le Havre – 12 et 13 juillet 2023

Laboratoire Ondes et Milieux Complexes (LOMC UMR6294 CNRS – Univ. Le Havre Normandie)

## **Wednesday, July the 12th**

### ***13:30 to 15:00 – Introduction and latest news about Dorothy - G. Pinon***

- Presentation of the different modules of the code DOROTHY based on former works
- Rapid presentation of the latest developments in the code DOROTHY
- Versioning of the code Gitlab IFREMER
- Management of the git : account, branches, bugs fixing methodology, how to upload new developments, merge request, non-regression test cases, etc.
- Presentation of the different parameters files, how to use the code DOROTHY computation of an essay and rapid configuration
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### ***15:30 to 17:30 – BEMT and Lifting line computations - M.A Dufour and M. Roperch***

- Presentation of the core equations of the BEMT method and the lifting line theory
- Identification & characterization of the dedicated parameters to run a given configuration with the BEMT code and the Lifting-Line implemented in Dorothy
- Computation of a BEMT simulation on the local computers using the NREL configuration: the input and output files, how to obtain the performances, etc.
- Computation of a lifting line simulation on the local computers using the NREL configuration: the input and output files, how to obtain the performances, etc.
- Post-treatment of the results, comparison between BEMT and LL-Dorothy results, convergence, etc.

## **Thursday, July the 13th**

### ***9:00 to 13:00 - Lifting line computations using a regular elliptical wind configuration – M. Roperch and G. Pinon***

- Practical session
- Attendees to run a configuration with the BEMT code, and the similar configuration with LL-DOROTHY: Elliptical wind, NREL 5MW or IFREMER configuration
- Run on the local computers: input and output files, how to obtain the performances, etc.
- Post-treatment of the results, comparison with the theory, convergence, etc.
- Question-Answer session