

Work package 3: Validation model tests of underwater bodies
Start and end of the work package: from Month 9 to Month 15
Work package leader: Dobrin Vladimirov Efremov
Participants in the implementation of the work package:
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Planned tasks:
3.1 Preparation of the experimental system PMM and models of elongated body and wing for the tests in BSHC basin
3.2 Model tests with variation of: immersion depth ($h_w / B \rightarrow \text{var}$); distance from the bottom ($h_d / B \rightarrow \text{var}$); speed towing ($R_n \rightarrow \text{var}$); angle of drift ($\beta \rightarrow \text{var}$)
3.3 Measurement and registration of forces & moments and kinematic motion parameters
Task 3.1 Preparation of the experimental system PMM and models of elongated body and wing for the tests in BSHC basin
Deliverable Calibrated sensors and subsystems of experimental facility PMM. Model outfitting for underwater tank tests.
Task 3.2 Model tests with variation of: immersion depth ($h_w / B \rightarrow \text{var}$); distance from the bottom ($h_d / B \rightarrow \text{var}$); speed towing ($R_n \rightarrow \text{var}$); angle of drift ($\beta \rightarrow \text{var}$)
Deliverable Towing of physical models of bodies with variation of: <ul style="list-style-type: none"> - depth of immersion - distance from the bottom of the pool - approach speed - angle of attack - video-registration of the flow around bodies and on free surface
Task 1.3 Measurement and registration of forces & moments and kinematic motion parameters
Deliverable Measured and recorded time-series of: <ul style="list-style-type: none"> - forces and moments acting on the body - angle of drift (attack) of the object - speed - waveform profiles control points - video recordings of underwater picture wrapping bodies and wavemaking on free surface
Results, which will be used for evaluation of the intermediate or final report of the project¹

¹ Scientific publication (accepted or submitted) in the journal with impact factor, or patent or build research equipment with unique features; for projects in the field of social sciences and humanities - publication in a refereed and indexed journal or reviewed studies or part of the monograph.

