%%%% READ ME %%%%

The three Wolfram Mathematica scripts provided in this supplementary material perform the third-order asymptotic expansion (5.1)-(5.2) of governing equations (2.1), (2.2) and (2.3) in the main manuscript, i.e. the momentum equation, the kinematic boundary condition and the dynamic boundary condition, respectively.

File names:

– Asymptotic_Expansion_Convective_Terms_Navier_Stokes.nb

– Asymptotic_Expansion_Kinematic_Equation_Free_Surface.nb

– Asymptotic_Expansion_Dynamic_Equation_Free_Surface.nb

The scripts are written in Wolfram Mathematica language, therefore they must be run within that environment. The corresponding .txt files are also provided to the readers for completeness.

Further details about the implementation and the associated outputs are given in each script.