Contribution ID: **98** Type: **Paper**

Station-keeping calculations in early design stage: two possible approaches

Wednesday, 20 June 2018 17:15 (15 minutes)

The continuous increase of offshore operation in deep or ultra-deep waters, makes, for modern units, Dynamic Positioning (DP) analysis mandatory since early design stage. The necessity to provide reliable solutions for the DP system to mount on board in order to maintain position requires the implementation of simulation codes to reproduce the dynamic behaviour of the unit under variable environmental circumstances. Usually, it is common practice to perform simplified quasi-steady calculations during the early design stage, in such a way to obtain a sufficient amount of indications, necessary to a rough estimation of DP system capability and dimensioning. Besides, time domain calculations can be also adopted, once sufficient information are already available, at the considered design phase, regarding hull form, thrusters system and superstructure geometry. In the present work the two mentioned approaches are compared in terms of the resulting capability plots evaluated for a reference ship. The results have been obtained from two self-developed codes (one quasi-steady and one dynamic), which are adopting the same thrusters allocation algorithm.

Primary author: MAURO, Francesco (Universita' di Trieste, University of Rijeka)

Co-author: Mr GAUDIANO, Francesco (University of Trieste)

Presenter: MAURO, Francesco (Universita' di Trieste, University of Rijeka)

Session Classification: Offshore

Track Classification: Offshore vessels design & engineering