



Robust Identification

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Robust Identification

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Current methods for identification of dynamic behavior have certain limitations in relation to the actual behavior of offshore platforms. The limitations are mainly related to the basic assumptions of linearity and stationarity when Operational Modal Analysis (OMA) is applied. However, the majority of the structures are highly non-linear and time varying, e.g. in cases of non-linearities from friction and in case of time varying systems when emptying and filling tanks on the topside. The research project is focused at adjusting existing OMA procedures so that the mechanical characteristics of the platform can be identified under the mentioned real conditions. With the ability to identify the real dynamic behavior, the life time prediction and structural health monitoring can be carried out with far greater precision.