

Singapore Stanford Partnership Programme

MS Project MS08-09

Modeling the Nonlinear Response of a Floating Structure (Semi-Submersible) to Ocean Waves

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With the increasing demand for energy comes the recent booming of the oil industry. Offshore oil exploration activity has moved to the deep ocean far from the shore. The typical water depth for offshore exploration and production platforms, which float on the ocean surface, is about 2000m. The study of the response of the floating structures to the ocean waves is one of the important topics in the industry. In this project, commercial software will be used to study the nonlinear response of a semi-submersible to second order Stokes waves. This project will include literature review and computer simulation.