論文内容の要旨

論 文 題 目 NUMERICAL AND EXPERIMENTAL ANALYSIS OF
CONTAINER STACK DYNAMICS
（コンテナスタックの動的挙動の数値的および実験的解析）

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The objective of this study is to understand the dynamic behavior of container stack on deck, during marine cargo transportation via a systematic study of the effect of the parameters such as rotation, frequency, gap and weight. These parameters effect are involved in such situation, where adverse loading conditions play role in response. However investigation of physics of this problem and validation of higher order dynamics, effect of twistlock gaps, lashing systems etc. cannot be implemented easily. This study is goaled to analyze container stack dynamics fundamentally to avoid container loss problem with Numerical and experimental studies. Numerical model is verified with experimental results and the validation of this numerical model and gained insights that taken from experimental results play an important milestone to implement analysis of a more complex problem and understand the dynamics of stack more and help to avoid container loss problem.