

# 파랑중 저수심에서의 초대형 컨테이너선에 작용하는 유체력 특성에 관한 연구

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## Hydrodynamic forces on very large container vessel due to waves in low water depth

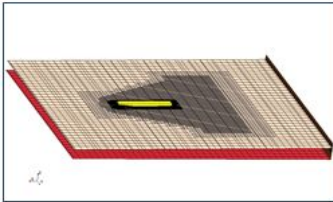
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핵심용어 : 저수심, 초대형 컨테이너선, 파랑, 유체력, 진산유체역학

Key Words : low water depth, very large container vessel, wave, hydrodynamic force, CFD

### 수치계산 조건 및 격자계



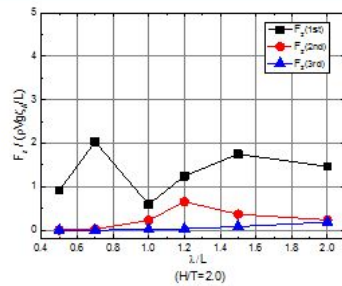
Upstream	1.5L
Downstream	2.5L
Transverse	2.0L
Bottom	5.0T, 2.0T, 1.5T
<b>DTC</b>	
Lpp (m)	355.0
B (m)	51.0
T (m)	14.5
$\nabla$ (m <sup>3</sup> )	173,467.0
C <sub>s</sub>	0.6610

- STAR-CCM+
- RANS solver
- Realizable k- $\epsilon$
- Vs=13.0kt (Fn0.113)

No. 2

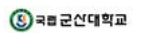


### Heave wave exciting force (H/T=2.0)

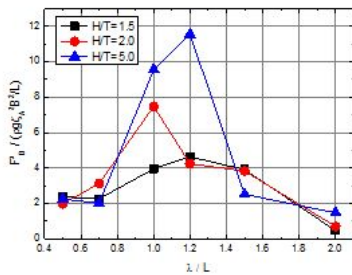


Heave wave exciting force in H/T=2.0

No. 6



### Mean wave drift force

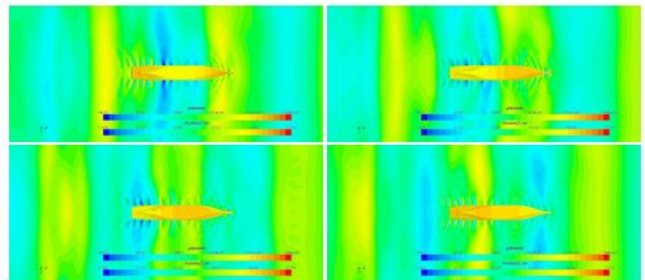


Mean wave drift force at three different water depth

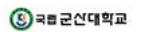
No. 4



### Pressure and wave contours (H/T=2.0)



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