



Mecklenburger Metallguss GmbH

EMship Week 2018

Rodrigo dos Santos Correa
Research & Innovation

A member of

DIHAG
HOLDING

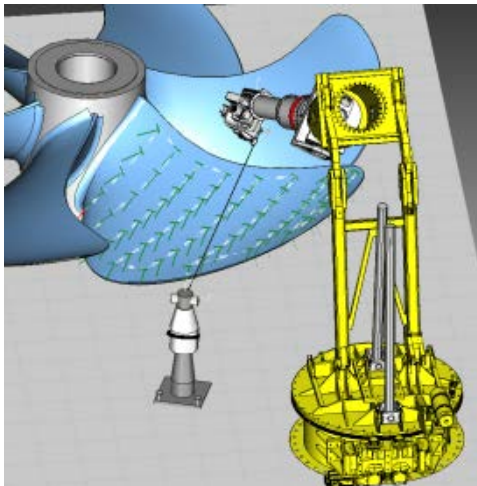
Company Location



A member of
DIHAG
HOLDING

Highest Quality

We do **not** follow others, we are setting **new** standards

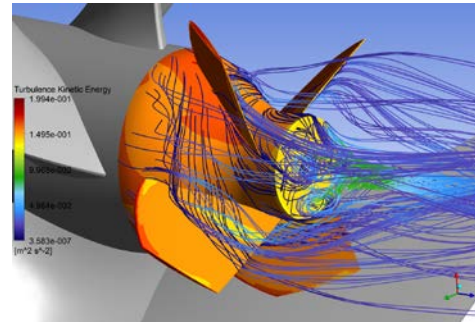


Main Products

MMG redesign
redesign programme



MMG escap[®]
energy saving cap



Vessel Size	No. of Ships	Savings
<3000 TEU	1	3 %
3000 - 6000 TEU	38	4 – 7 %
6000 – 8000 TEU	43	5 – 9 %
8000 – 10000 TEU	42	6 – 15 %
10000 – 12000 TEU	4	5 – 10 %
12000 – 14000 TEU	47	6 – 11 %
> 14000 TEU	26	6 – 9 %

Vessel Applications



Container Vessel



Bulker



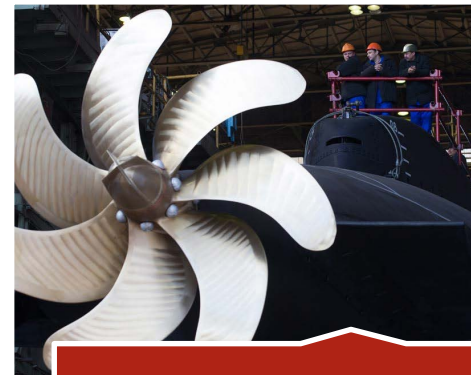
Oil Tanker



LNG Tanker

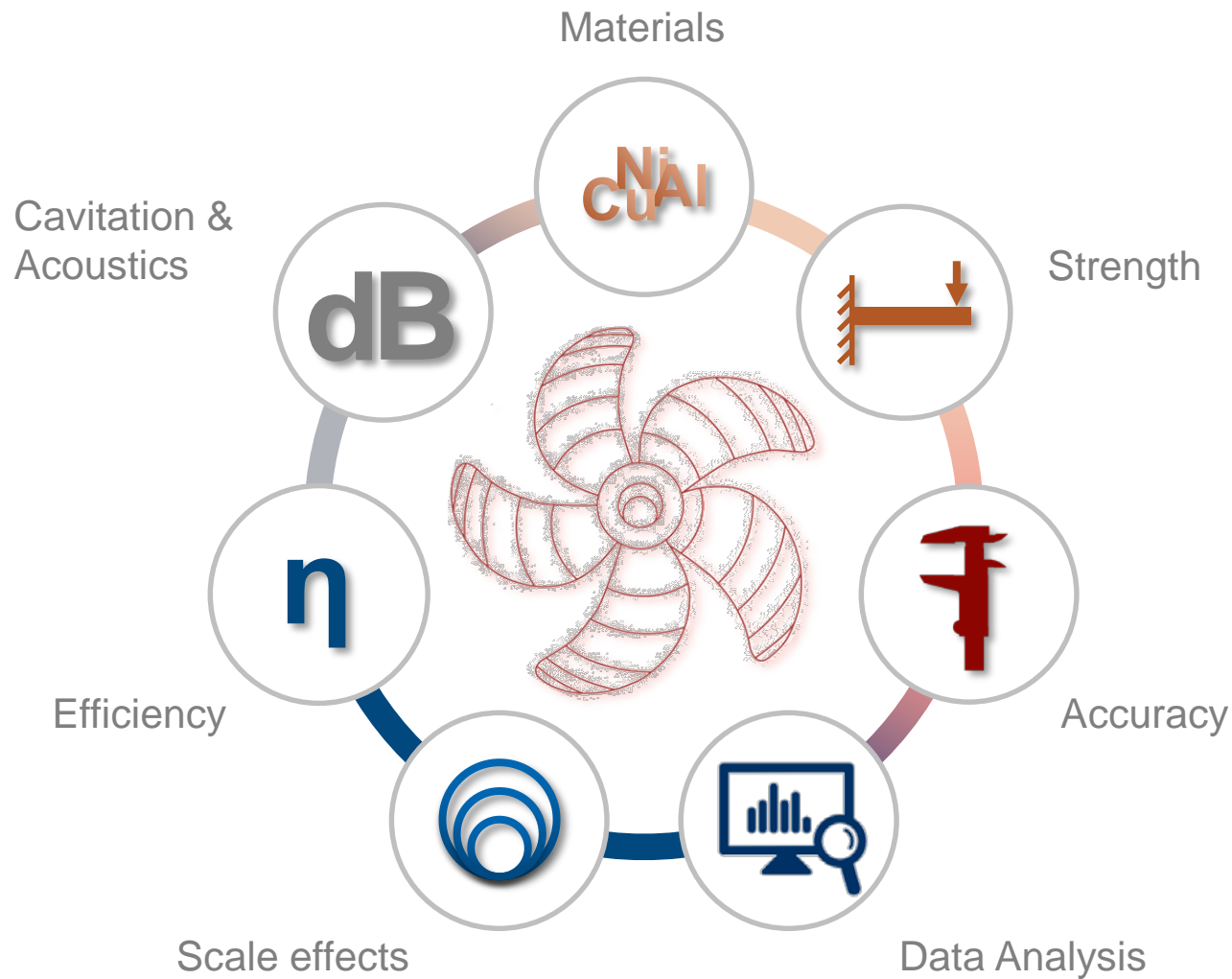


Cruise & Yacht



Navy & Research

Research @ MMG



Thesis Proposal 1

Evaluation of Different Model Test Scaling Methods and Their Effect on the Full-Scale Prognosis



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Evaluation of Different Model Test Scaling Methods and Their Effect on the Full-Scale Prognosis

Objective

To perform a full-scale prognosis with different scaling methods for two given propeller designs.

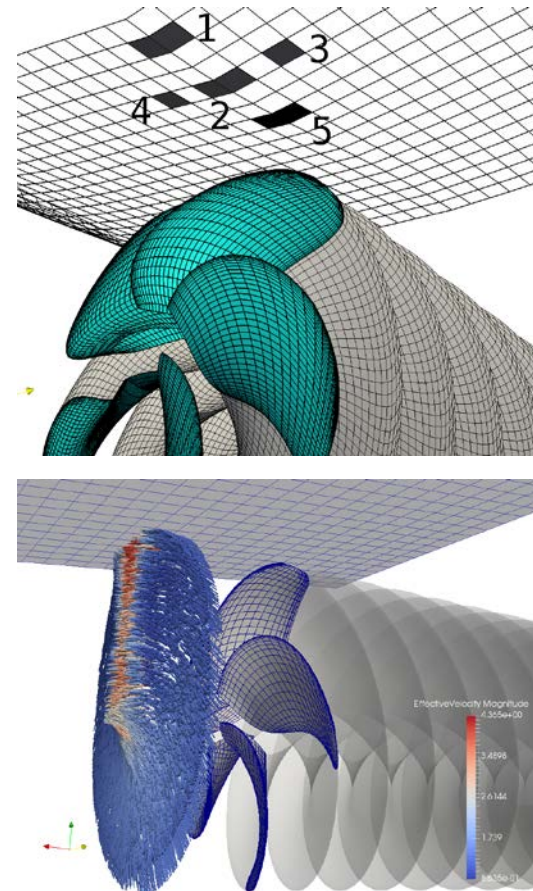
Information

- Implement different scaling methods;
- The prognosis is furthermore compared with full-scale CFD results.
(it depends on your pace!)



Thesis Proposal 2

Evaluation of Propeller Induced Pressure Pulses Using Numerical and Experimental Methods



Thesis Proposal 3

Development of an Alternative Approach for Determining the Propeller Stresses

Tasks

- Calculate Pressure Field (CFD)
- Determine blade position which delivers Higher Thrust Variation
- Export pressure field and import to Ansys mechanical (FEA)
- Perform FEA analysis
- Evaluation (e.g. possibilities to decrease thickness, etc)

EMship TimeLine

Rodrigo Correa
5th Cohort - 2015

Aung Ko Latt
6th Cohort - 2016

Thales Machado
7th Cohort - 2017



Rostock

