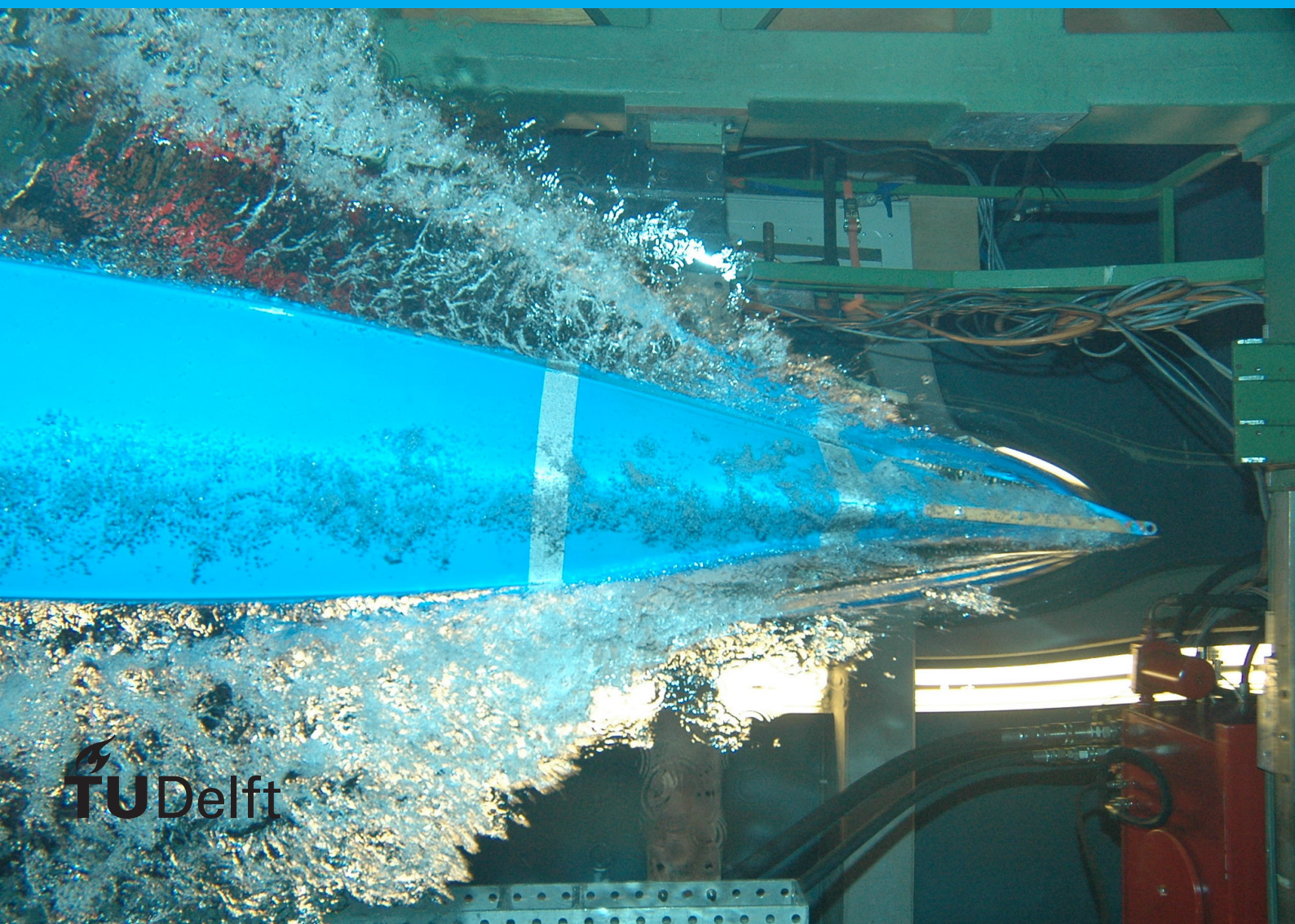


CIE5308

Breakwater Rehabilitation Romano Port

J. Gundlach – C. Rozas – L. Lange

Group 3



CIE5308

Breakwater Rehabilitation Romano Port

by

J. Gundlach – C. Rozas – L. Lange

Student numbers: 4450426 – 4519388 – 4512022
Project duration: March 18, 2016 – April 1, 2016

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1

Notes

1.1. 18.03.16 - lecture introducing exercise

Main aim: design breakwater

1. new breakwater
2. adjust existing one

Location:

- ..

Present situation:

- cross-section, what they were supposed to build
- slide 9: measured cross-section

Assignment:

- three locations
- three design lifes: after so many years needs to be maintained/rebuild, not for design cinditions!
- something with the existing (Bas)...?

Design:

- assume: subsoil no problem
- Any idea where the rock comes from? Quarries in ALbania? Albania exports a lot of Marble to Italy. How about the stones sorted out?
- Infra structure in Albania not as good.
- Google Earth because you can check time. Check -design period and +design period from present.
- Play with colors in picture editor. Image processing for bathymetry stuff.
- Map Room: Libarary of faculty of architecture, first floor within library. And webpage of this library? And webapp.navionics.com (not working for 4G).
- Check wave data from design wind speed → should be in same magnitude as from Argoss (verify data)

Argoss:

- sells wave data
- www.waveclimate.com
- TuDelft DuT4321 valid until 31.3.
- Size of piece: find balance (density of data is the same, too big, not appropriate anymore, too small, not enough data any more)
- 1D, 2D, 3D
- don't use their model for nearshore

B.C.:

- B.C. damage vs. B.C. operation of port
-

Presentation:

- Why did you make this choices you made?
- Presentation and questions of group will be graded.
- No obvious information in the presentation
-

Report:

- Indicate 2.1 to 2.6 clearly in report
- Make it possible to enable contractor for a pricing
- Drawing on A3
- only cross-section, only one
- head needs not to be designed?
- only 10 pages text
- report should be understandable without annex
-

Calculation:

- bonus for differences due classical and probabilistic approach
- No assessment on skills in maths
-

PIANC:

- kennisbank waterbouw
- "codes, standards and design guides"
- ...
- "Books and reports"

Check:

1. google earth
2. make pdfs from ppt's
3. Argoss book online or from library
4. check demands on slides, slide 21 e.g.
- 5.

2

Introduction

2.1. General Task

By *Group 3* the breakwater in the South is looked at:

- adjacent to roundhead, axis 315°
- rubble mound single layer cubes
- rehabilitation
- 100 years design life
- quay wall in future

[1] ← this can be deleted as soon, as there is any other citation we can place, so to prevent error messages due to “no citations found”

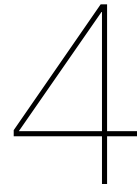
3

Design Criteria

see exercise 3.1

Requirement	Return period	Verification method(s)	Design value	Calculated value
this is supposed to be a verly long text to check whether it will automatically insert a line break	this is supposed to be a verly long text to check whether it will auto-matically insert a line break	this is supposed to be a verly long text to check whether it will automatically insert a line break	this is supposed to be a verly long text to check whether it will auto-matically insert a line break	this is supposed to be a verly long text to check whether it will auto-matically insert a line break
x	x	x	x	x
x	x	x	x	x
x	x	x	x	x
x	x	x	x	x
x	x	x	x	x
x	x	x	x	x
x	x	x	x	x
x	x	x	x	x
x	x	x	x	x

Table 3.1: List of requirements



Boundary Conditions

see exercise 3.2

- 4.1. Location**
- 4.2. Subsoil**
- 4.3. Reference levels**
- 4.4. Bathymetry**
- 4.5. Waves**

5

Design Calculations

see exercise 3.3

6

Drawing

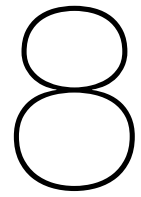
see exercise 3.4

This is one single page, where we can add the folded A3 of our drawing after printing. Included to not interrupt counting of pages.

7

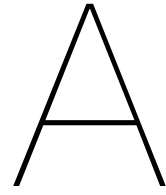
Construction Method and Planning

see exercise 3.5



Further Research and Validation

see exercise 3.6



Function GumbelUnc.mat

Whatever XX

Bibliography

- [1] A. K. Geim and H. A. M. S. ter Tisha. Detection of earth rotation with a diamagnetically levitating gyroscope. *Physica B: Condensed Matter*, 294–295:736–739, 2001. doi: 10.1016/S0921-4526(00)00753-5.