MEK4420 student task

## student task

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#### Introduction

- 7.1
- 7. 2
- 7. 3
- 7. 5. 1
- 7.5.2 Løs integrallikningen med kjente variabler

### 7.5.3 - Solution of the heave problem

vi ønsker å løse integrallikningen:

$$-\pi\phi(\bar{x}\bar{y}) + \int_{S} \phi \frac{\partial}{\partial n} \ln r dS = \int_{S} \frac{\partial \phi}{\partial n} \ln r dS$$
 (1)

der  $\partial \phi / \partial n = n_1$  langs med S.

Diskret integrallikning.

$$-\pi\phi + \sum_{m=1}^{N} \phi_m(-\Delta\Theta_{n,m}) = \sum_{m=1}^{N} \left[\frac{\partial\phi}{\partial n}\right]_m h_{n,m}$$
 (2)

Addert masse kan approksimeres slik:

$$m_{ij} = \rho \int_{S} \phi_{j} n_{i} dS \simeq \rho \sum_{m=1}^{N} [\phi_{j}]_{m} [n_{i}]_{m} \Delta S_{m}.$$
(3)

# Figurer

### Diskretisering av boks

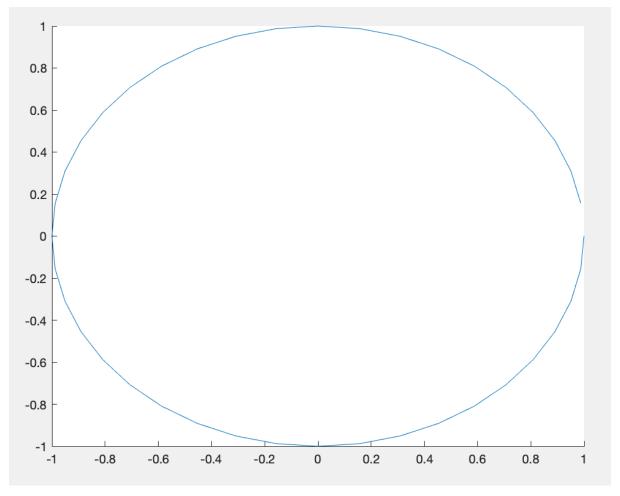


Figure 1

Wave Mechanics

Wave Mechanics

### Kladd

### References

[1]: Open Met Buoy, J. Rabault - DOI: 10.13140/RG.2.2.15826.07368