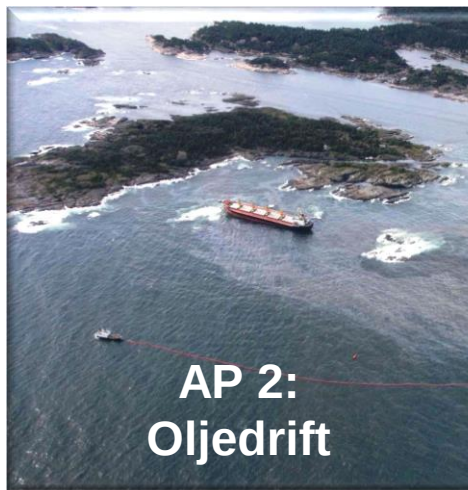


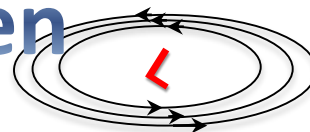
Ny Oslofjordmodell

- for varsling av strøm, vannstand og hydrografi

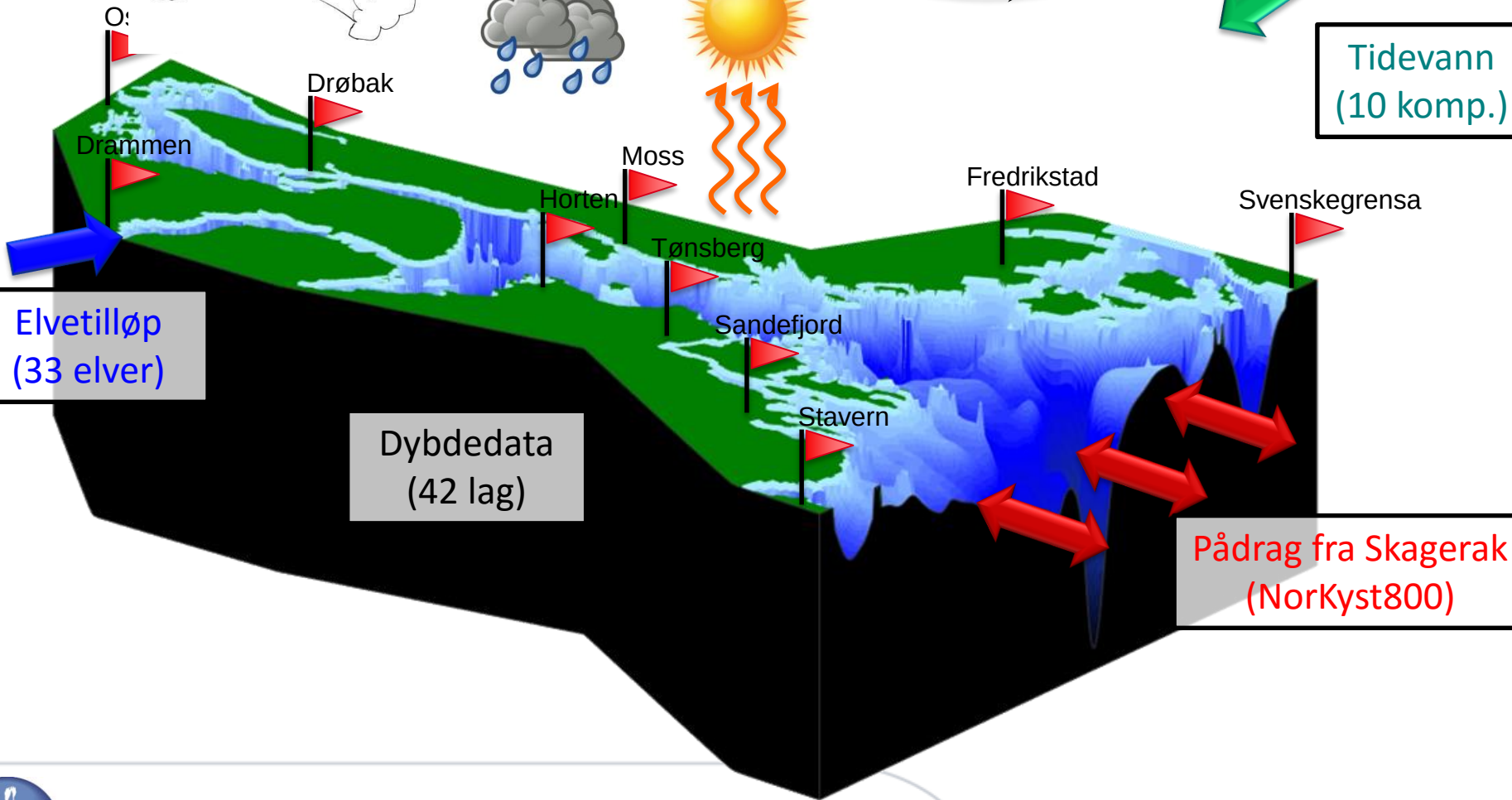


Oppbygging av modellen

Atmosfærepådrag
(Arong 2.5km)



Tidevann
(10 komp.)

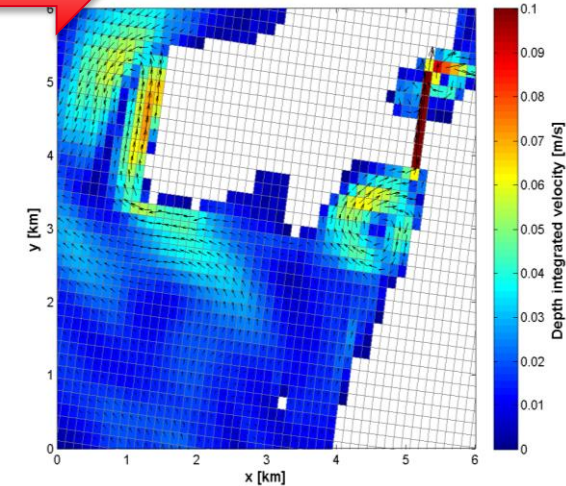
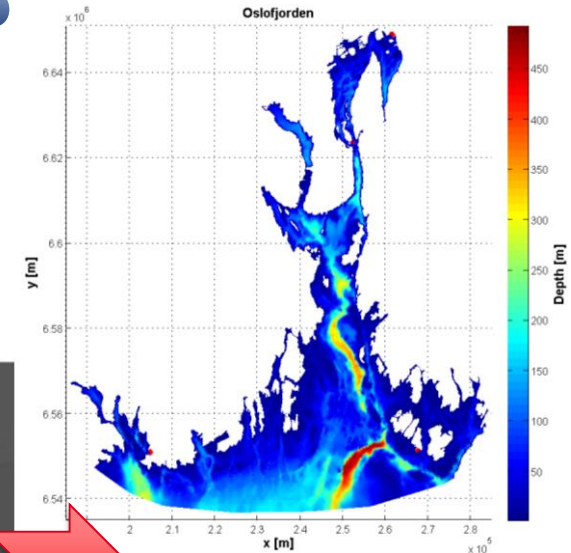


FJORDOS

www.fjordos.no

Hvordan lages en fjordmodell?

$$\begin{aligned} \frac{\partial u}{\partial t} + \vec{v} \cdot \nabla u - f v &= -\frac{\partial \varphi}{\partial x} - \frac{\partial}{\partial z} \left(\overline{u'w'} - v \frac{\partial u}{\partial z} \right) + F_u + D_u \\ \frac{\partial T}{\partial t} + \vec{v} \cdot \nabla T &= -\frac{\partial}{\partial z} \left(\overline{T'w'} - v_T \frac{\partial T}{\partial z} \right) + F_T + D_T \\ \rho &= \rho(T, S, P) \\ \frac{\partial v}{\partial t} + \vec{v} \cdot \nabla v + f u &= -\frac{\partial \varphi}{\partial y} - \frac{\partial}{\partial z} \left(\overline{v'w'} - v \frac{\partial v}{\partial z} \right) + F_v + D_v \\ \frac{\partial \varphi}{\partial z} &= -\frac{\rho g}{\rho_0} \\ \frac{\partial S}{\partial t} + \vec{v} \cdot \nabla S - \frac{\partial}{\partial z} \left(\overline{S'w'} - v_S \frac{\partial S}{\partial z} \right) &= F_S + D_S \end{aligned}$$



Oljeutslipp

Tidspunkt:

1. mai 2014 kl. 13:00

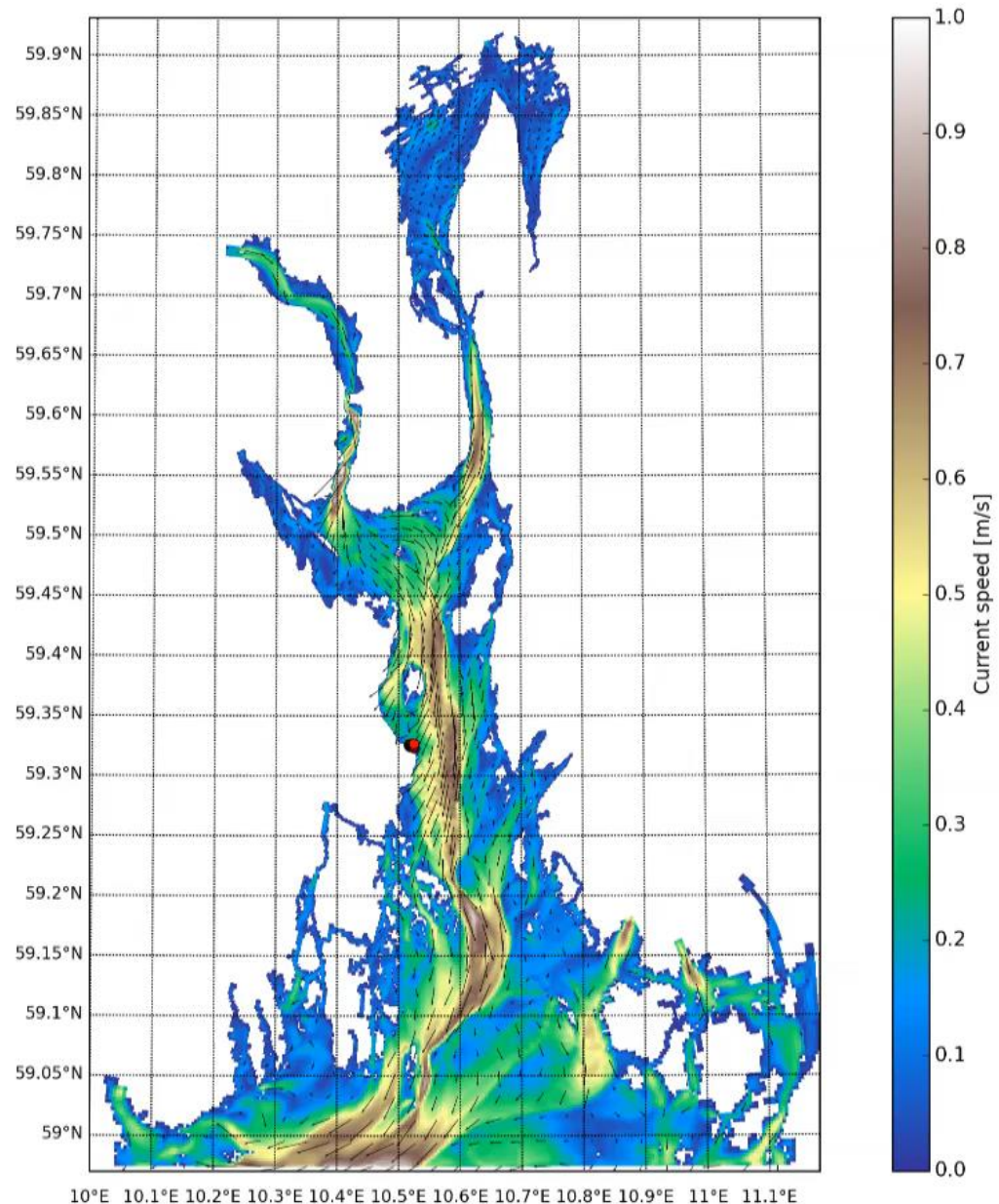
Posisjon:

Slagentangen

Simulert:

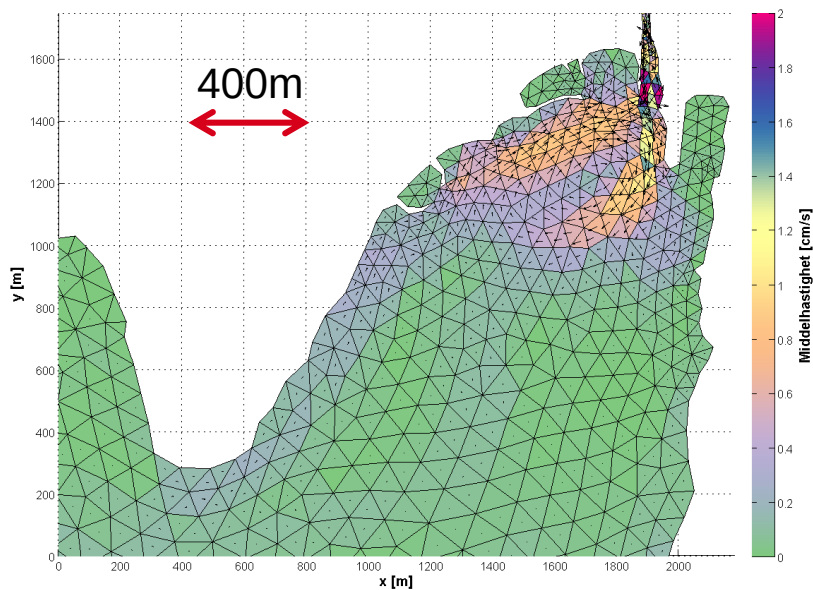
30 driftere rundt Slagen

Strøm i overflaten



Moss havn

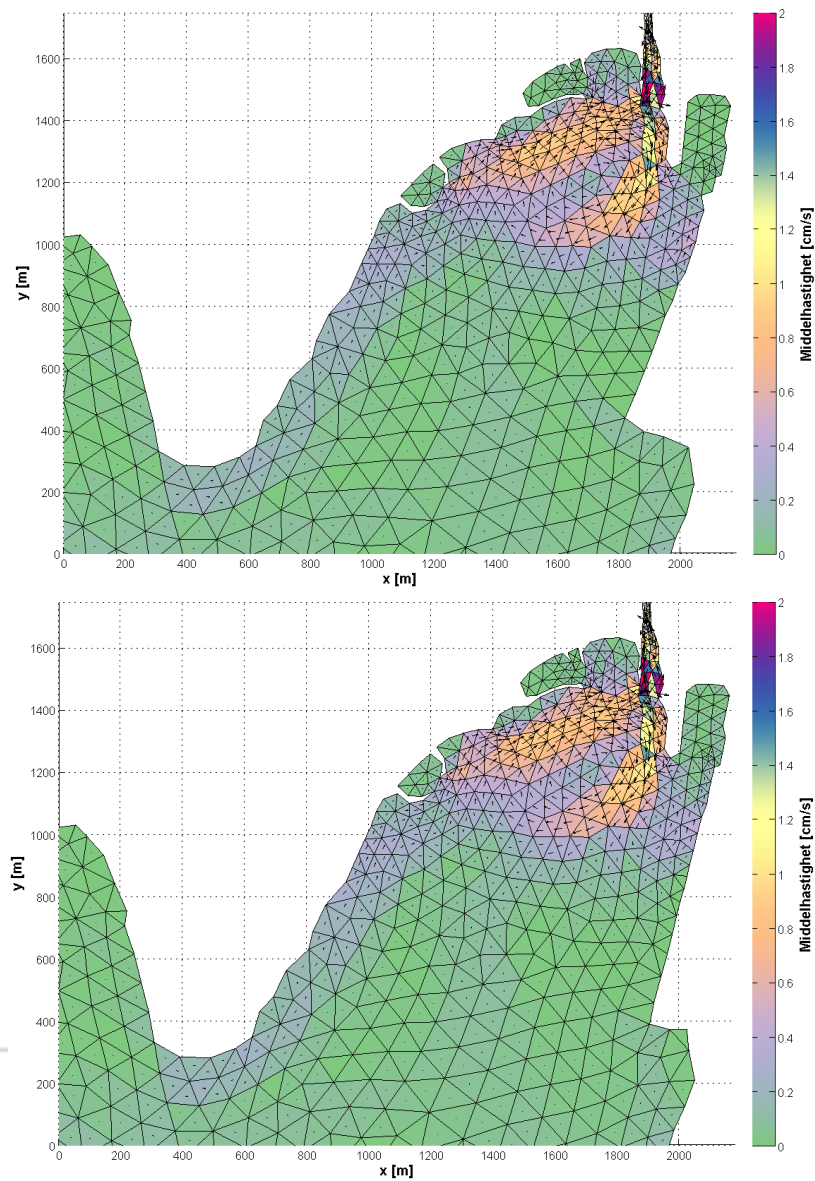
Opprinnelig design



NIVA-rapport:

«Simulert tidevann i Oslofjorden
– Tre forskjellige havnedesign i Moss»

Foreslått design



Eksempler på forskningsprosjekt som har brukt resultater fra FjordOs

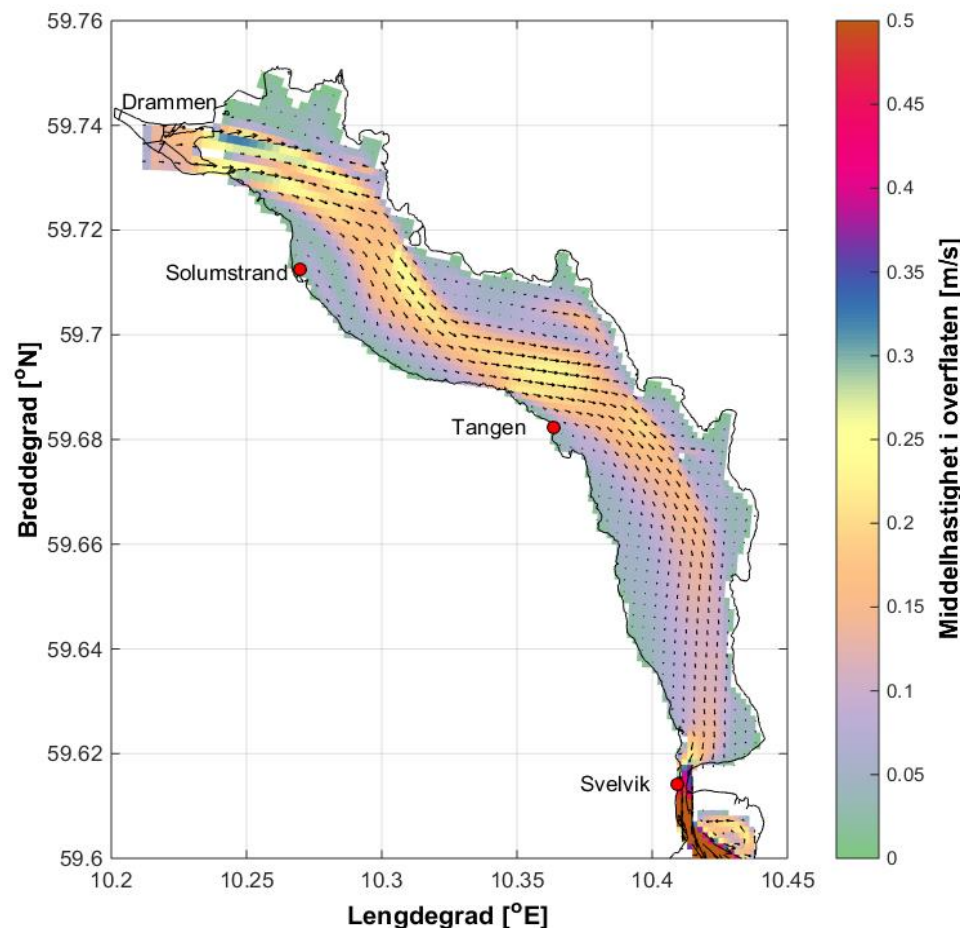


Regnbyge 3M



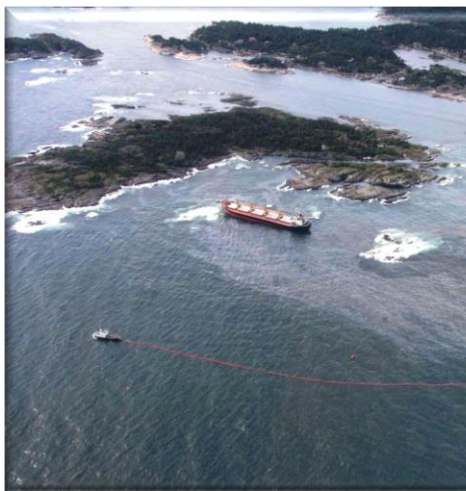
Avløp fra renseanlegg i Solumstrand

- Hovedstrøm midt i fjorden med bakevjer på hver side
- Ved Solumstrand er det en svak middelstrøm nordover



Hva du skal med matematikken?

Bruke den, selvsagt...



Mer info på: www.fjordos.no