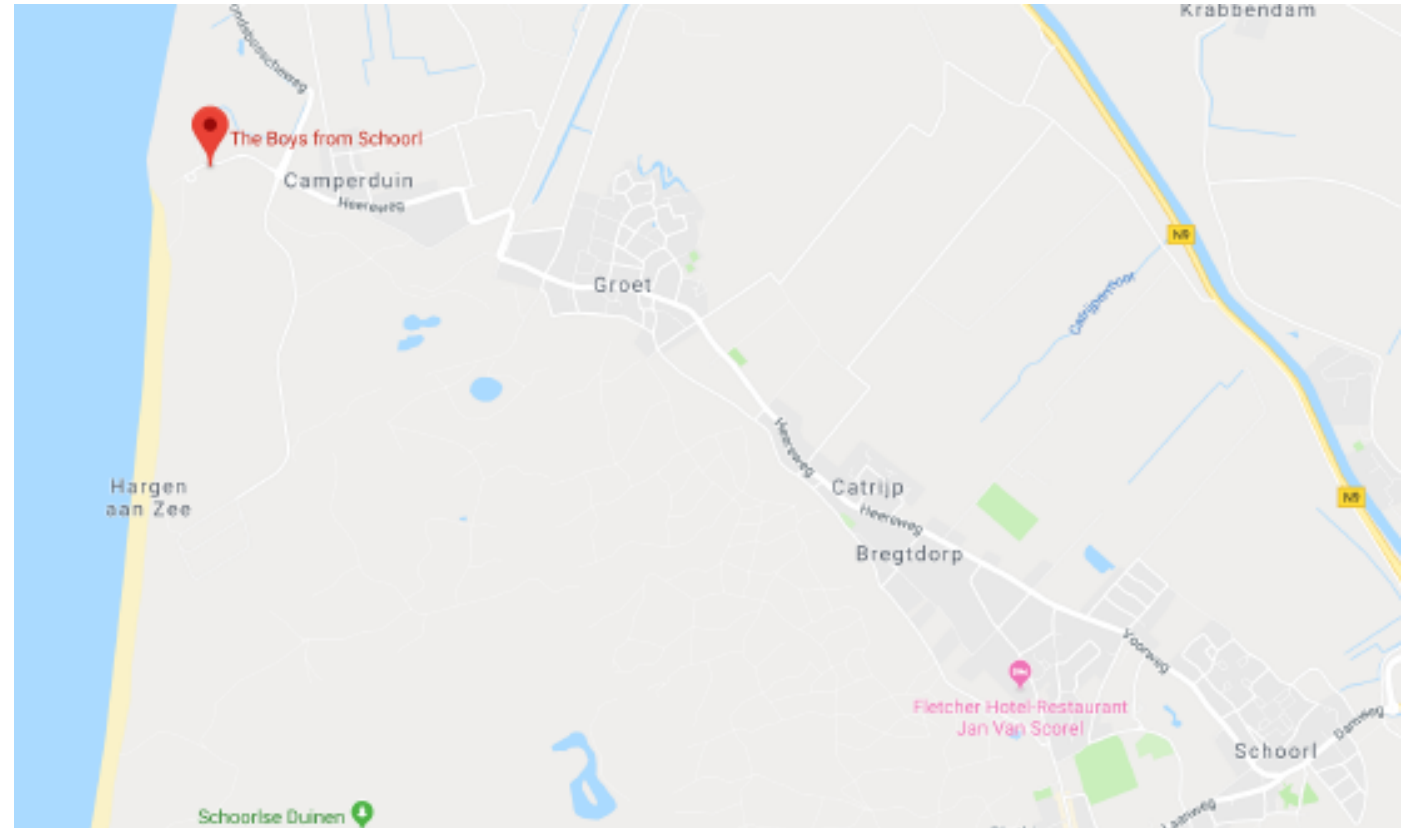# Welcome to the 2nd Nikhef KM3NeT Outing

Why an outing?

- Take the time to listen to your colleagues
- Critical (but constructive) reflection
- Where are we going as a group? What can we do better?
- **Ask Questions**
- Relax…

Format:

- Talks, but save time for discussion
- Sports. Beach activity starts 15:30
- Dinner, drinks.

ORCA: seafloor network OK
         3 DUs in the water, but one has broken VEOC (Aaaarrggghhh)
         3(?) more DUs ready for deployment, would complete phase 1

         Phase 2 funds: 7 DUs France
                          20 DUs Netherlands
         Some 20 M€ could be further assigned by France, if KM3NeT proves that ORCA works
         Currently procuring lots and lots of components for ORCA phase 2

ARCA: seafloor network under design/tender
         2 DUs in the water, but one does not work
         22 further DUs under construction in order to complete phase 1
            deployable starting summer 2020

         Phase 2 funds: 52 DUs Italy

Further funds for ±10 lines from the Netherlands, not yet assigned; other funds searched for.

Organizational form (ERIC, project office,…) under discussion.

DUNE: long baseline neutrino experiment, beam from Fermilab, far detector at SURF (South Dakota)

Far detector: 4 modules of 10 kton (fiducial volume) liquid argon (?) each.
Two modules single phase, one module dual phase, 4th module undecided (might be different)

Near detector under design. Huge neutrino sample!

Currently preparing for blasting and removing 800000 tons of rock.

First cavity ready for start of installation module 1 by end of 2024. Ready 2026.

Beam not before 2027/2028. Proton accelerator (up to 120 GeV) to be constructed.

ProtoDUNE to be kept alive in the next years, and take more beam data in Run 3 (2021-2023).
Test bench for DAQ development and data analysis.

Some (subjective…) points that I would like to see discussed in this outing:

How to get the most out of the first DUs in the water.
It is urgent to show that KM3NeT works.

We need papers. Technical/commissioning/physics with first data.

ORCA physics program with staged detector completion.

Mitigate the effects of ARCA delays: Antares data, IceCube data?

DUNE/KM3NeT synergy.

Thursday, 23 May 2019

10:00 - 10:30	Coffee
10:30 - 10:50	Welcome and Introduction *20'* Speaker: Paul de Jong
10:50 - 11:15	Brian *25'* Speaker: Mr. Brian Ó Fearraigh (Nikhef)
11:15 - 11:40	Thijs *25'* Speaker: Thijs Juan van Eeden
11:40 - 12:05	Jordan *25'* Speaker: Jordan Seneca
12:05 - 12:30	Maarten *25'* Speaker: Maarten de Jong
12:30 - 13:30	Lunch
13:30 - 13:55	Iris *25'* Speaker: Iris Reitsma
13:55 - 14:40	Karel and discussion on tracking *45'* Speaker: Karel Melis
14:40 - 19:00	To the beach and activity
20:00 - 22:00	Dinner

Friday, 24 May 2019

09:00 - 09:25	Dorothea *25'* Speaker: Dorothea Samtleben
09:25 - 09:50	Rasa *25'* Speaker: Rasa Muller
09:50 - 10:15	Aart *25'* Speaker: Aart Heijboer
10:15 - 10:30	Ronald *15'* Speaker: Ronald Bruijn
10:30 - 11:00	Coffee
11:00 - 11:15	Ernst-Jan *15'* Speaker: Ernst-Jan Buis
11:15 - 11:40	Lodewijk *25'* Speaker: Lodewijk Nauta
11:40 - 12:05	Bruno *25'* Speaker: Bruno Strandberg
12:05 - 12:30	Fatih *25'* Speaker: Fatih Bay (Nikhef)
12:30 - 12:55	Milo *25'* Speaker: Milo Vermeulen
13:00 - 14:00	Lunch
14:00 - 14:10	Departure