



UNIVERSITY OF  
GOTHENBURG

# ***“Gas flux measurements in terrestrial ecosystems - state of the art and emerging technologies”***

**An open workshop on trace gas flux measurements**

**University of Gothenburg, 10. - 13. May 2015**

The development of new technology is a prerequisite for progress in the research on trace gas emissions from ecosystems. Various robotized solutions have been developed or are in the making, which are excellent platforms for implementation of novel spectroscopic instruments. Such new approaches open new possibilities and applications, particularly in field experiments. This meeting will bring together frontrunners in this field to present current and discuss future developments.

The main focus of this workshop is on  $N_2O$ , but presentations of techniques approaching other trace gases are appreciated as well.

We welcome the participation of students as well as researchers with an interest in the topic.

↓ watch us in action on youtube! ↓



[NMBU/Bioforsk/Adigo field flux robot](#)



[Uni York SkyGas](#)



[Bioforsk/NMBU cable car](#)

Jointly organized by [NORA](#), [ICOS Sweden](#), and [SITES](#)



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Registration and Abstract Submission under:

<https://nora.nmbu.no/events/workshop>

Abstract deadline extended until **08. April** 2015

Contact: [jan.reent.koester@nmbu.no](mailto:jan.reent.koester@nmbu.no)





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# Programme – NORA-ICOS workshop 2015 (preliminary programme)

## Sunday, 10. May, evening:

Ice breaker party at the [Department of Earth Sciences \(Guldhedsgatan 5A\)](#), University of Gothenburg

## Monday, 11. May: N<sub>2</sub>O mission measurements – requirements, experiences and challenges

Sessions:

- Introduction (ICOS and NORA)
- Biological processes
- Modelling of N<sub>2</sub>O fluxes
- Micromet techniques
- Soil cover techniques
- Stable isotope techniques

## Tuesday, 12. May: Field trip with demonstrations

- NMBU field robot for N<sub>2</sub>O and CO<sub>2</sub> measurements
- Eddy covariance system with N<sub>2</sub>O and CH<sub>4</sub> laser
- VOC emission measurements using Eddy Covariance and Proton Transfer Reaction Mass Spectrometry (PTR-MS)
- Laser-based isotope analyses using Cavity ring-down spectroscopy (CRDS)

## Wednesday, 13. May: State of the art and emerging technologies

Sessions:

- Robotic field platforms and automated systems
- Lasers and fast box approaches
- Remote sensing and imaging of gas concentrations
- Plane/drone/satellite based measurements
- Existing and future laboratory approaches

## Venue:

The workshop will be held at [Conference Centre Wallenberg](#), University of Gothenburg ([Medicinaregatan 20A](#), 413 60 Gothenburg, Sweden).

## Sponsored by:



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