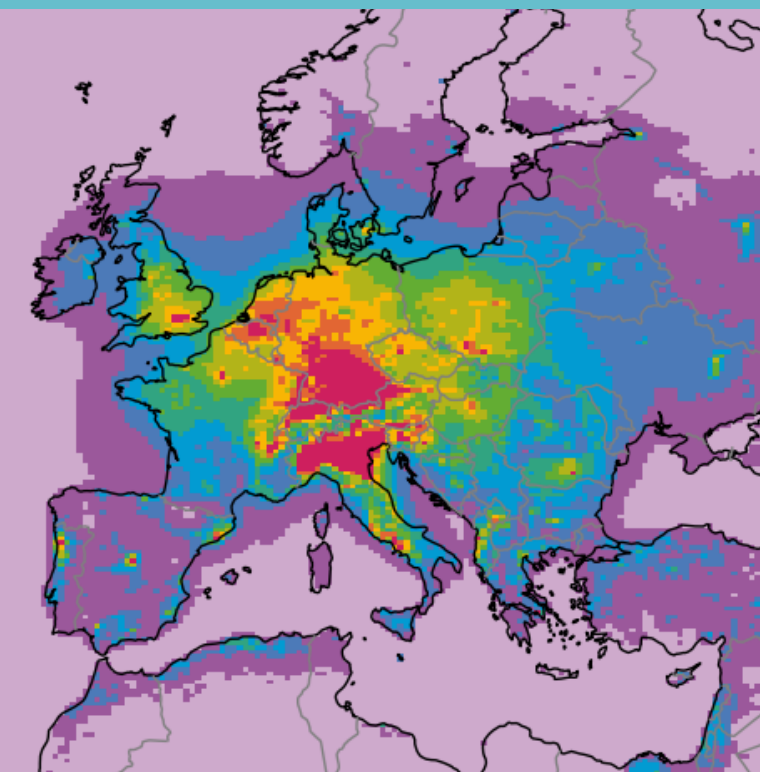


LOTOS - EUROS workshop

Air quality modeling
and emissions

29 & 30 January 2025
Utrecht



Wednesday 29 January

Venue: Aristo Utrecht Hoog Catharijne

8:30 - 9:00 Registration and coffee

Welcome and Introduction

9:00 - 9:15 Welcome TNO
[Ioanna Skoulidou \(TNO\)](#)



9:15 - 9:45 LOTOS-EUROS: the big picture
[Keynote speaker](#)
[Astrid Manders \(TNO\)](#)



Emission input aspects

9:45 - 10:15 Recent developments in emission inventories: emerging pollutants & sources, plus specific improvements to the spatial distribution
[Keynote speaker](#)
[Jeroen Kuenen \(TNO\)](#)



10:15 - 10:35 Improvement of emission time profiles and their impact
[Jerry Ge \(TNO\)](#)

10:35 - 10:55 **Coffee break**

Reactive Nitrogen Modelling

10:55 - 11:25 Progress in modelling nitrogen deposition for the Netherlands and Germany
[Keynote speaker](#)
[Martijn Schaap \(TNO\)](#)



11:25 - 11:45 Adapting the LOTOS-EUROS deposition module for improved performance in Mediterranean climates
[Andre Barreirinha \(UA\)](#)

11:45 - 12:05 High-Resolution Nitrogen Deposition Modelling for Ecological Conservation: Integrating DALES and LOTOS-EUROS for the Veluwe
[Mahmoud Ahmed \(TU Delft\)](#)

12:05 - 13:00 **Lunch break**

Data Assimilation and Machine Learning

13:00 - 13:30 Data Assimilation with the LOTOS-EUROS Local Ensemble Transform Kalman Filter (LETKF)
[Keynote speaker](#)
[Tyler Wizenberg \(TNO\)](#)



13:30 - 13:50 AI-based air quality Forecasting model learned from LOTOS-EUROS
[Jimmy Pang \(TU Delft\)](#)

13:50 - 14:10 A local-scale Bayesian inversion for atmospheric ammonia emission
[Simeng Li \(CML\)](#)

14:10 - 14:30 Optimizing NH3 emissions over China by assimilating CrIS satellite observations into LOTOS-EUROS China version
[Jianan Che \(WUR\)](#)

14:30 - 15:00 **Coffee break**

Use of Earth Observations

15:00 - 15:20 Using LOTOS-EUROS in an end-to-end environment for satellite instrument designs

Keynote speaker
Enrico Dammers (TNO)



15:20 - 15:40 CAMS NCP for the Netherlands
John Douros (KNMI)

15:40 - 16:00 Tropospheric Ozone in the Po Valley: Assessment Using Space-Borne Observations, In-Situ Measurements, and LOTOS-EUROS Simulations
Stiliani Musollari (AUTH)

16:00 - 16:20 Meta-analysis of NH₃ exchange models: validation across diverse measurement datasets
Tycho Jongenelen (CML)

16:20 - 17:30 Interactive session and wrap-up

18:30 Dinner

Thursday 30 January

Venue: TNO Utrecht Auditorium

Source apportionment for policy support

9:30 - 9:50 Model and method intercomparisons for source apportionment
Keynote speaker
Jessie Zhang (TNO)



9:50 - 10:10 Organic aerosol modeling and source apportionment with LOTOS-EUROS
Ruud Janssen (TNO)

New Developments LOTOS-EUROS

10:10 - 10:40 Developments in LOTOS-EUROS v3
Keynote speaker
Hannah Jonas (TNO)



10:40 - 11:00 WRF vs ECMWF: Which meteorological driver is the most adequate for complex terrain?
Michael Russo (UA)

11:00 - 11:20 First steps in determining critical loads in Wallonia via LOTOS-EUROS
Fabian Lenartz (ISSEP)

11:20 - 12:15 Discussion in break-out sessions

12:15 - 12:30 Wrap-up and closure

Register?

Sign up for the event by clicking this [hyperlink](#).

Locations

Wednesday 29 January

Aristo Meeting Plaza
Hoog Catharijne
Godebaldkwartier 357
NL-3511 DT Utrecht

Thursday 30 January

TNO Utrecht
Auditorium
Princetonlaan 6-8
NL-3584 CB Utrecht