

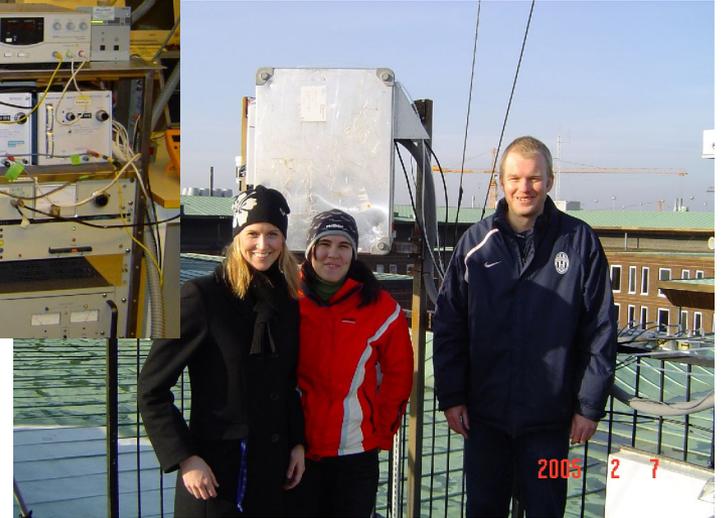
# Göteborg University

Sara Janhäll

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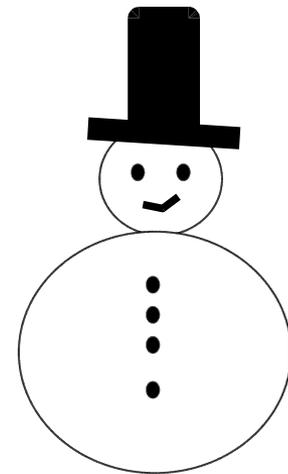
# GÖTE-2005



- Winter campaign (2 Feb – 2 Mar 2005)
- The Göteborg area
- [www2.chem.gu.se/~hallq/Gote\\_2005.htm](http://www2.chem.gu.se/~hallq/Gote_2005.htm)

# GÖTE-2005

- Particle number size distributions
- Particle mass ( $PM_{10}$  and  $PM_{2.5}$ )
- Particle content
  - OC/EC
  - Organic speciation
  - Elemental content
  - Ionic content
- VOC, Hg, Fluxes, Monitoring , Meteorology...



# Participants:



GÖTEBORGS  
UNIVERSITET



Göteborgs Stad  
Miljö



CHALMERS



Centre for  
Ecology & Hydrology

NATURAL ENVIRONMENT RESEARCH COUNCIL



Eidgenössische Technische Hochschule Zürich  
Swiss Federal Institute of Technology Zurich



Meteorologisk  
institutt  
[marked.met.no](http://marked.met.no)



ACCENT

ATMOSPHERIC COMPOSITION CHANGE  
THE EUROPEAN NETWORK OF EXCELLENCE



UNIVERSITÄT  
BERN

PAUL SCHERRER INSTITUT

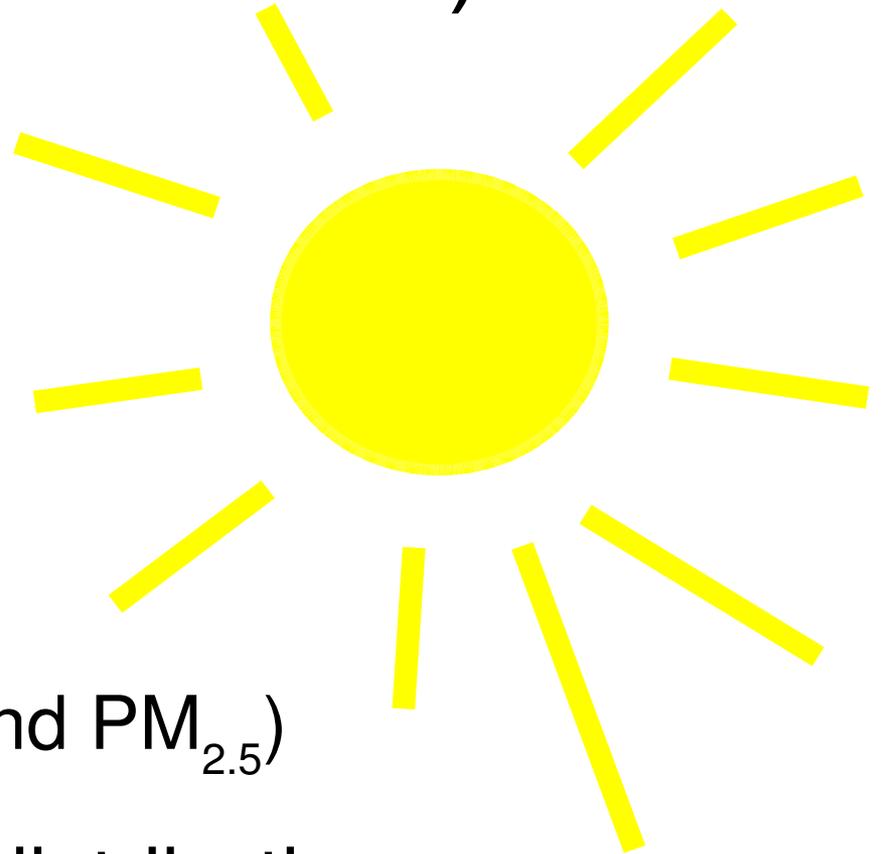


Independent Administrative Institution

National Institute for Environmental Studies

# GÖTE-2006 (mini version)

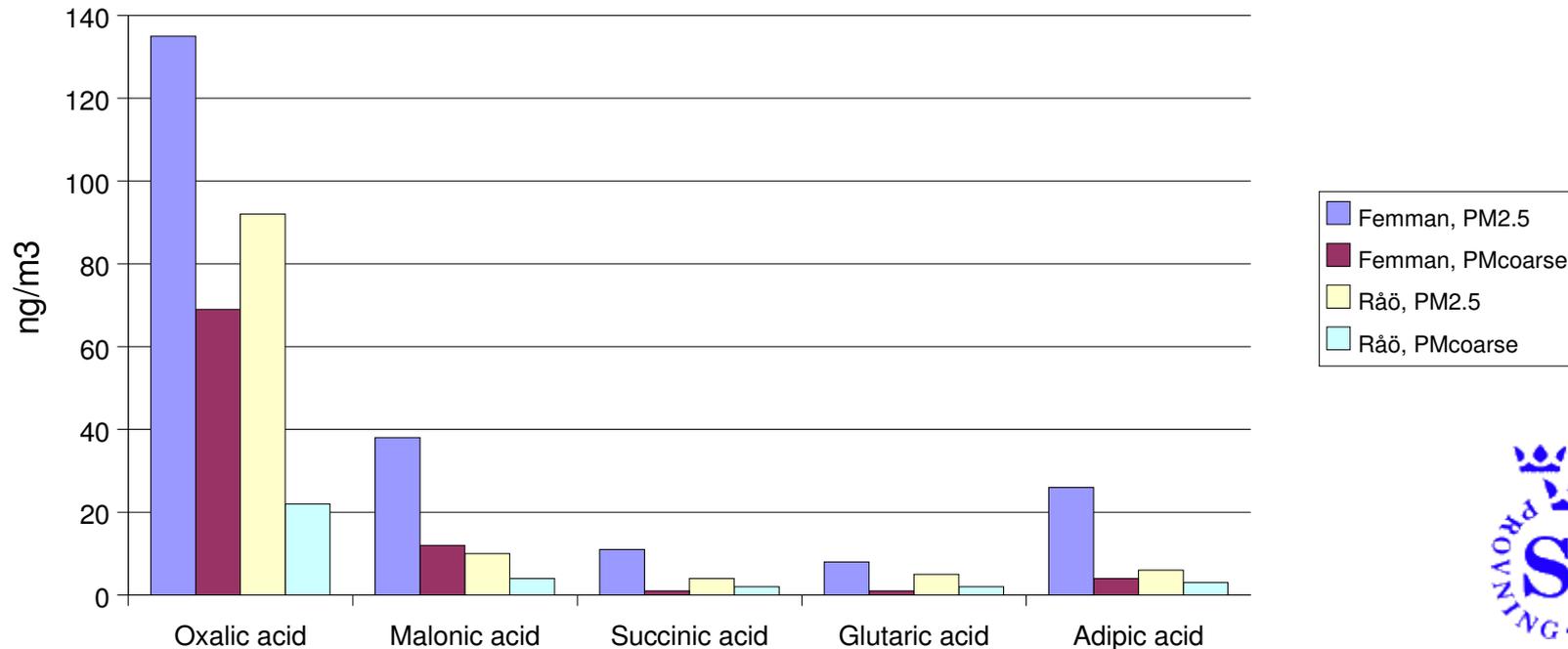
- Particle content
  - Organic speciation
  - OC/EC
  - Ionic content
  - Elemental content
  - Particle mass ( $PM_{10}$  and  $PM_{2.5}$ )
- Particle number size distributions
- Meteorology and monitoring



# Organic Content of Particles

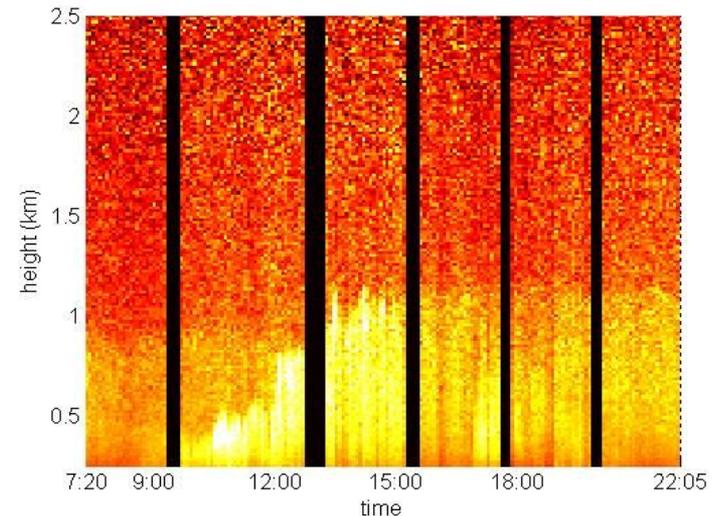
Carboxylic acids, dicarboxylic acids and PAH by direct injection in GC-MS

## Dicarboxylic Acids



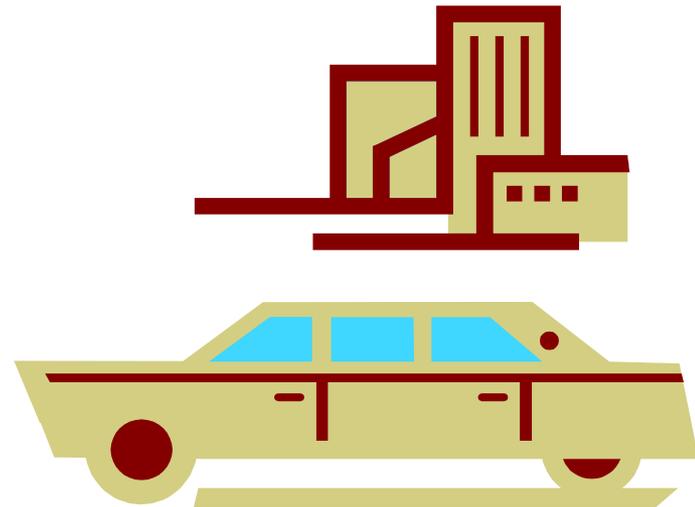
# Elemental content of particles and LIDAR measurements

- XRF analysis
- IC analysis
- Masses of particles
- Vertical distribution of particles

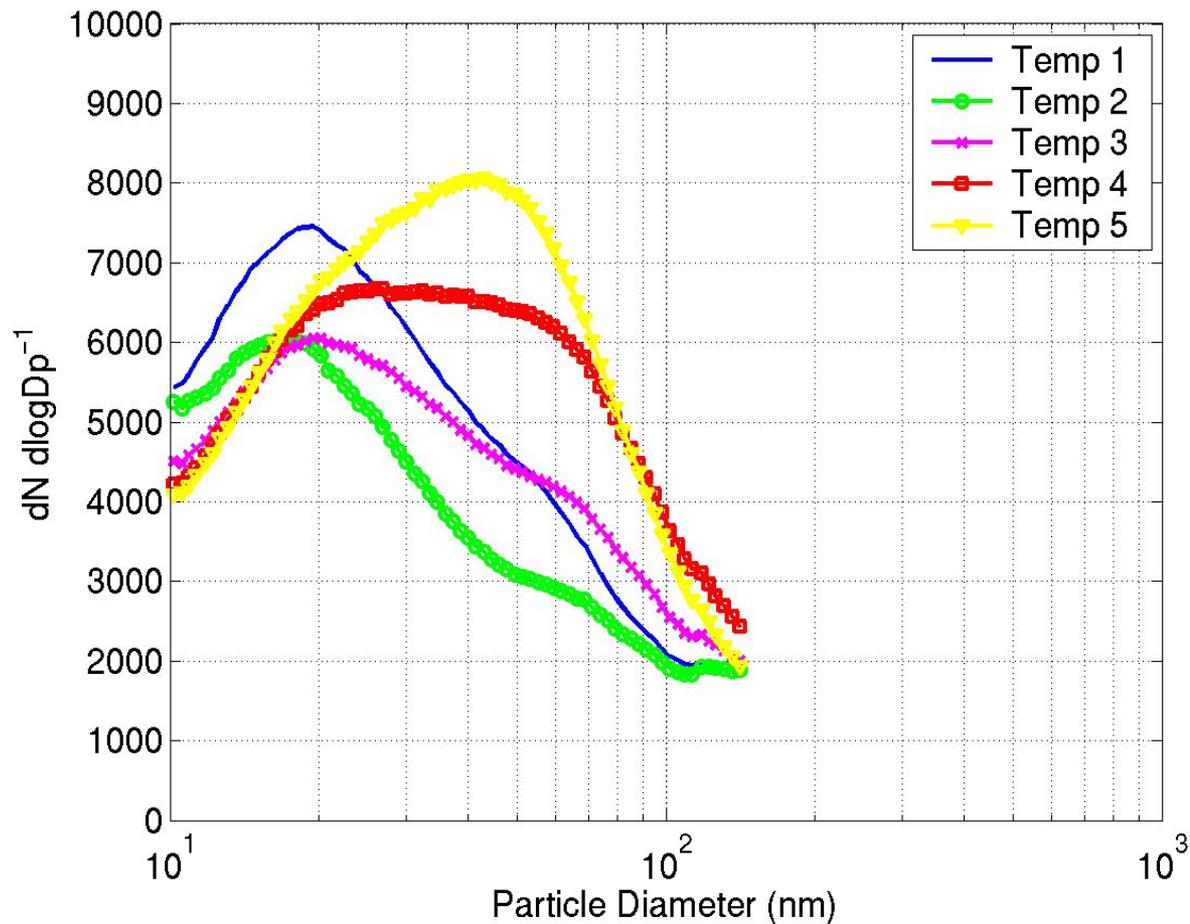


# Size distributions and emissions

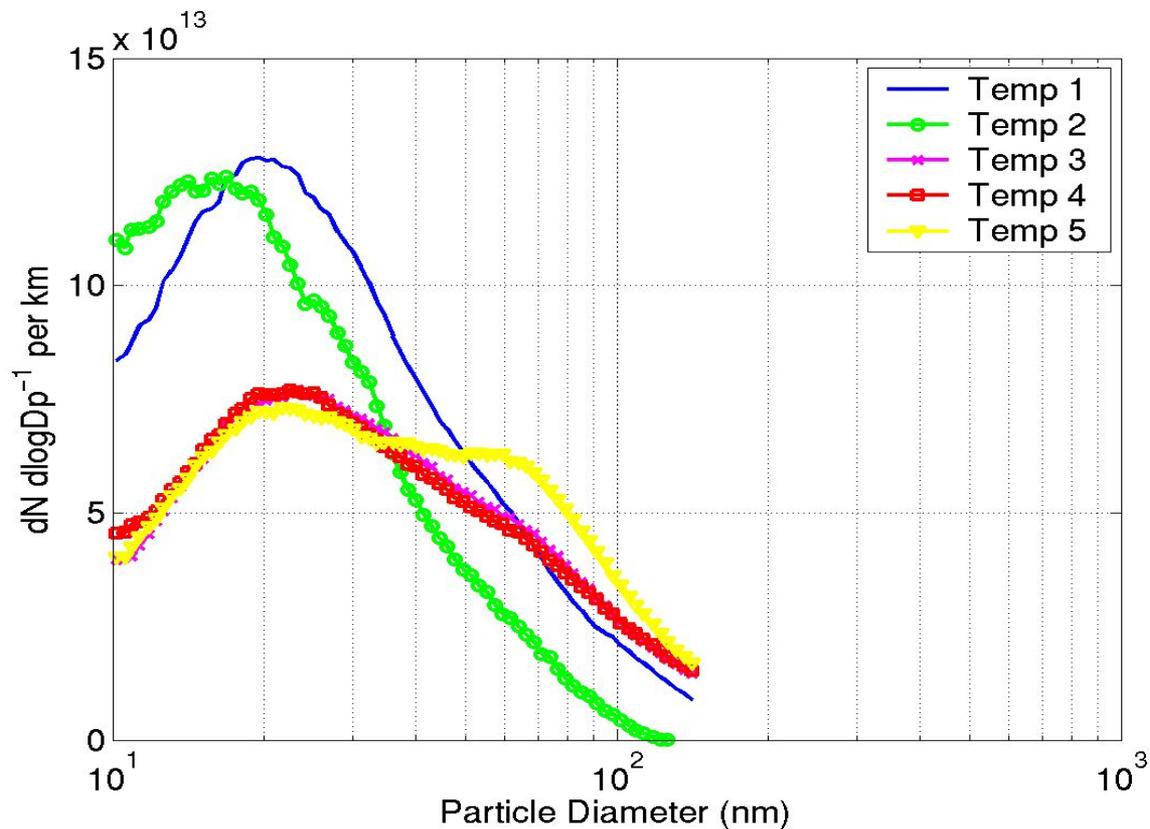
Concentrations & Emission factors (traffic)  
related to weather and  
other variables



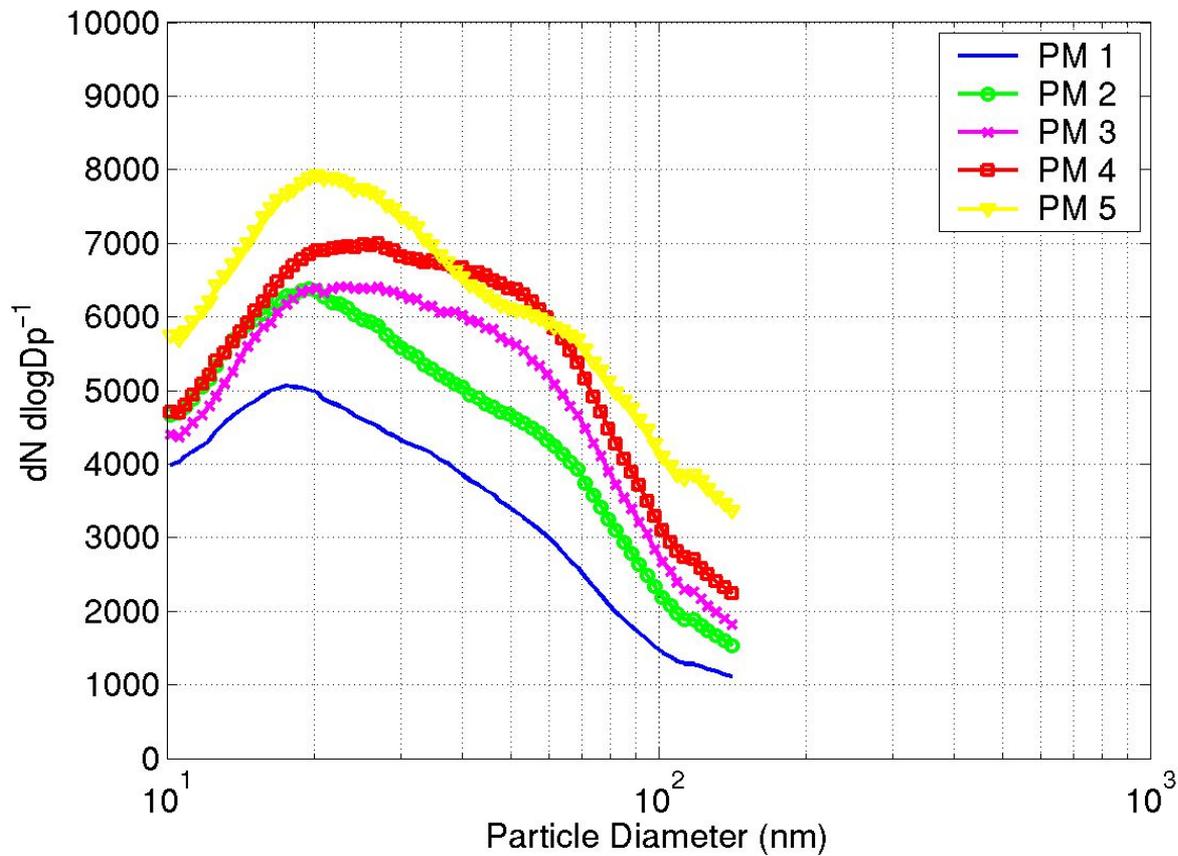
# Concentration by temperature



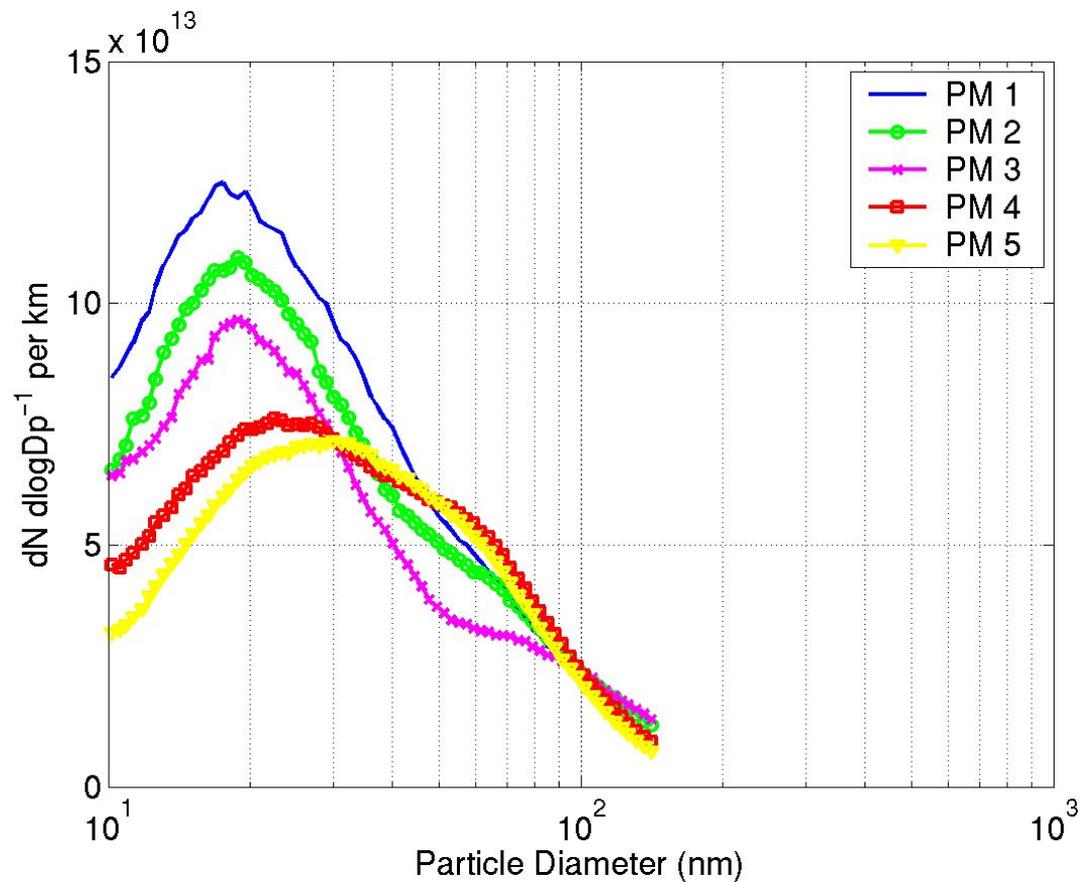
# Emissions by temperature



# Concentration by PM<sub>10</sub>



# Emissions by PM<sub>10</sub>





# Modelling GÖTE-2005

- EMEP model, downscaled
- Cooperation with IVL and TAPM
- Present focus: local emissions
- Primary Goal: Use EMEP to compare particle fluxes to emission factors



Thank you!

# Temperature effects on emission factors

