

We measure it.



Application – Ambient Air Monitoring

with testo DiSCmini

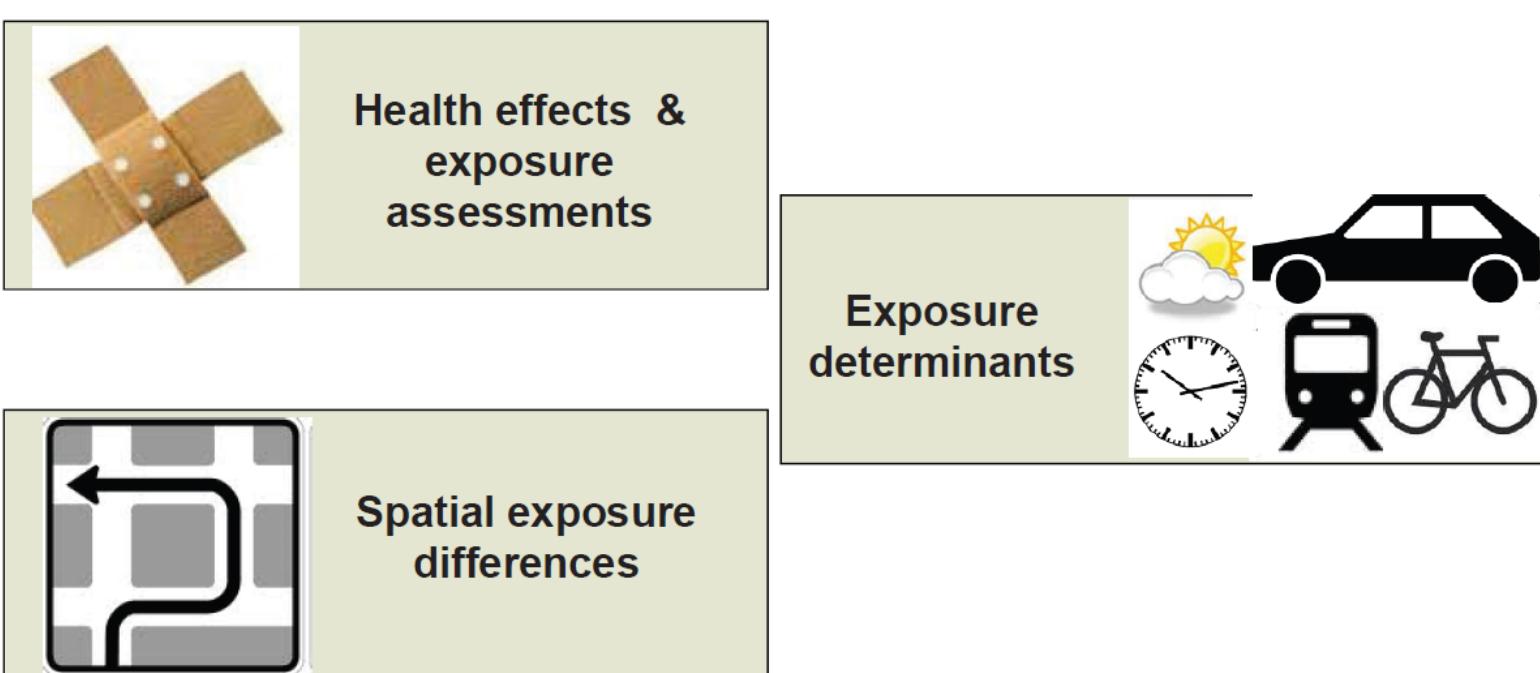


ETH Conference on Combustion Generated Nanoparticles, June 25-27, 2012

Commute exposure to ultrafine particles (UFP) in the city of Basel, Switzerland



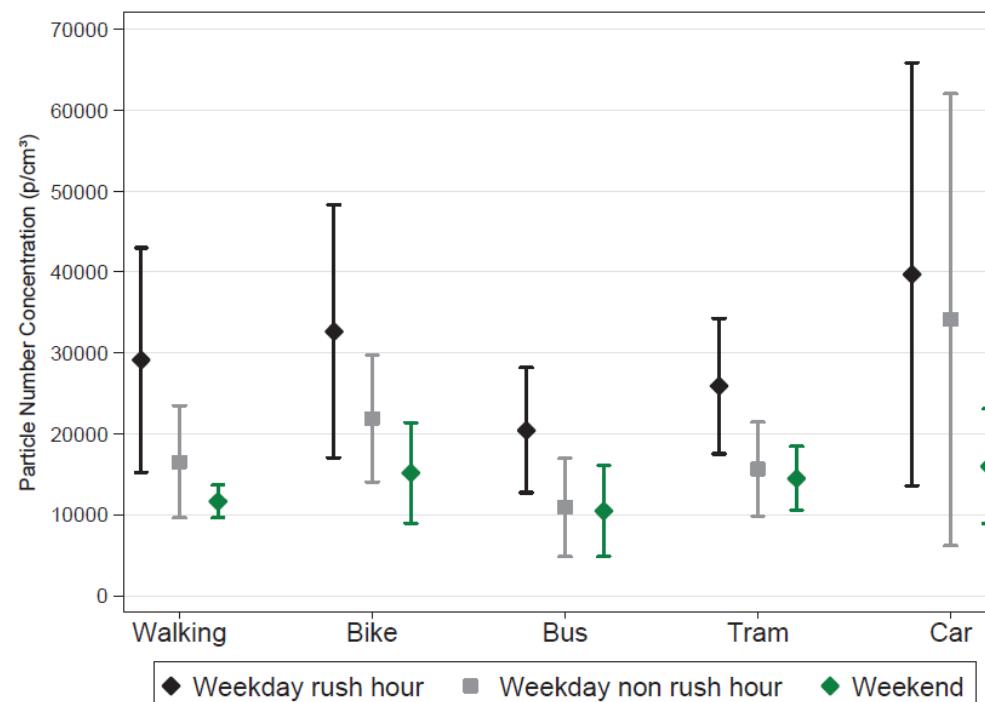
Commute exposure to ultrafine particles: Areas of interest



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**Particle Number Concentration by mode of transport & time of the day/week
(mean ± SD)**



18 sampling days (6 weekends, 18 weekdays) in spring & fall 2011
275 trips, based on individual trip medians

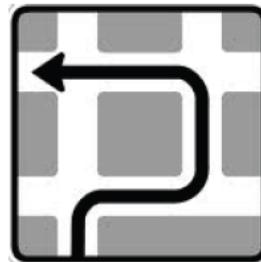
Our UFP measurements in Basel suggest...



- Higher exposure levels for **car** (40'000 particles), **bicycle** and **walking** (29'000-33'000 particles) compared to public transport (21'000-26'000 particles)



- Commuting by bike contributes to **daily exposures**, especially in winter (**21%**)



- **Avoiding main streets** reduce commute exposure **by one half**

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 **NANOINDEX**

Personal exposure to nanoscale particles in everyday life

nanoIndEx final workshop
Berlin, May 31st, 2016

*Institut für Energie- und
Umwelttechnik e.V.*

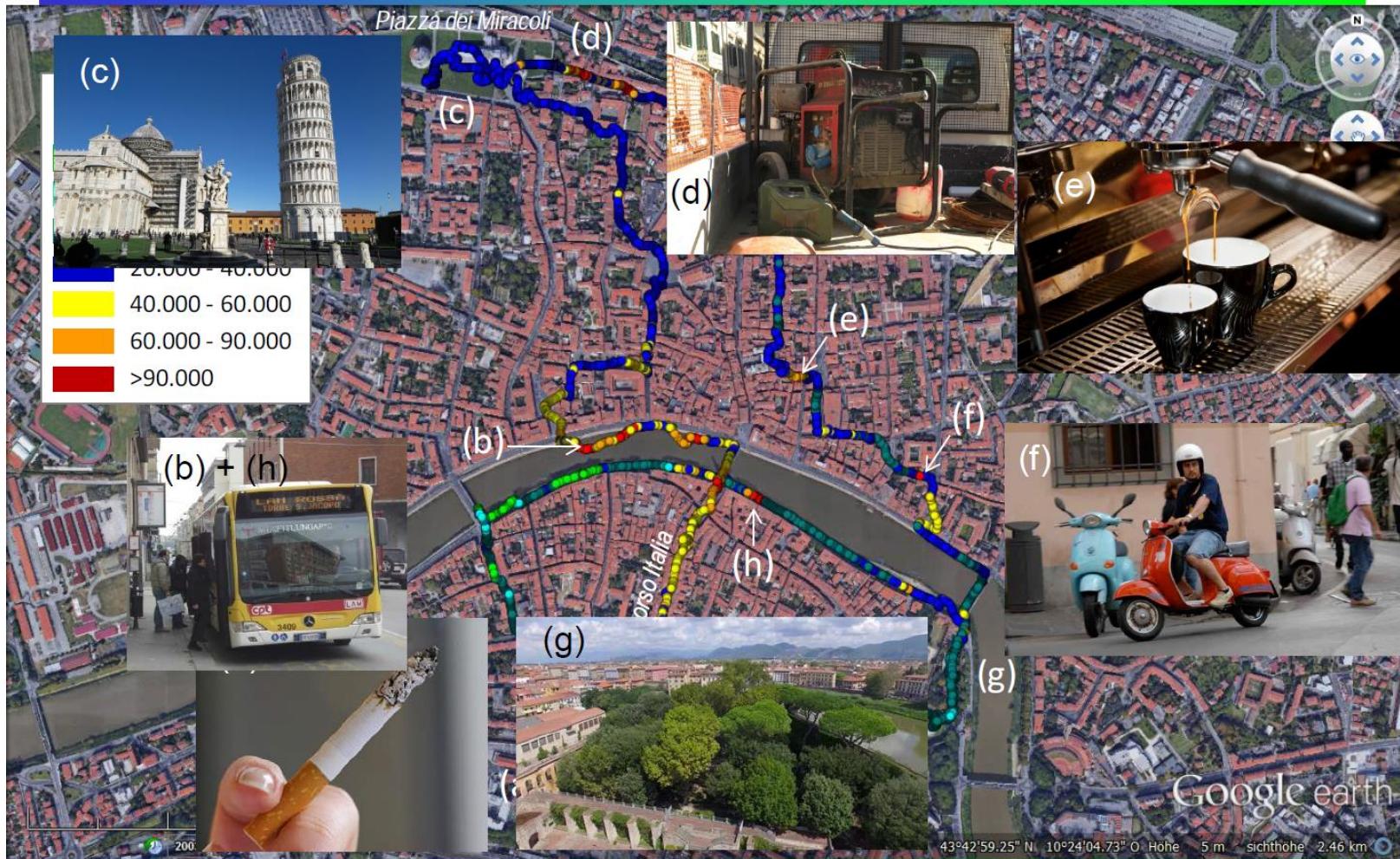
Air Quality & Filtration

UNIVERSITÄT
DUISBURG
ESSEN

Offen im Denken

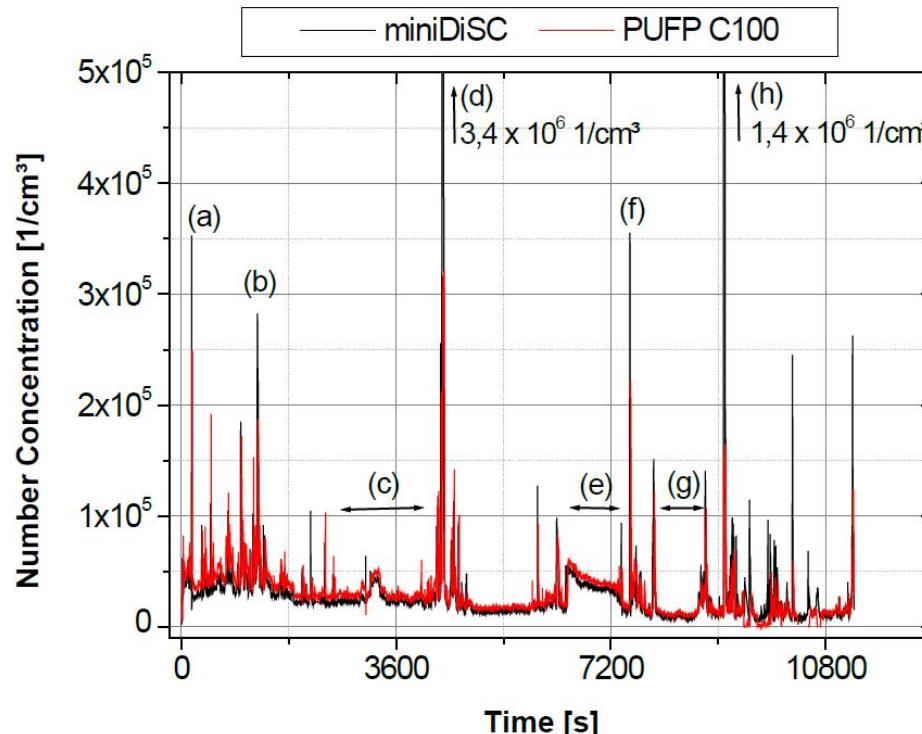
Application #1: Air quality monitoring

Sightseeing tour in Pisa



Application #1: Air quality monitoring

Number concentrations in Pisa



Piazza dei Miracoli



miniDiSC: $26,940 \pm 6,570 \text{ 1}/\text{cm}^3$
 PUFP C100: $33,000 \pm 7,190 \text{ 1}/\text{cm}^3$

Giardino Scotto



miniDiSC: $9,230 \pm 1,310 \text{ 1}/\text{cm}^3$
 PUFP C100: $11,970 \pm 1,580 \text{ 1}/\text{cm}^3$

Asbach and Todea, Gefahrstoffe – Reinhal tung der Luft (in preparation)

References

❖ Ambient air monitoring

Contact Testo for reference list

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