FUVN Open Repository

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With thanks to Saad Inam@University of Southampton, Vitor Lavo@University of Reading for maintaining the repository

Breathing City

Future Urban Ventilation Network

Proposal:

- “a portal for urban outdoor and indoor flow, air quality datasets and modelling tools with associated publications as highlighted by the systematic review”
- “collating data across disciplines…crucial for evidence-based guidance”
- “high quality benchmark case datasets”

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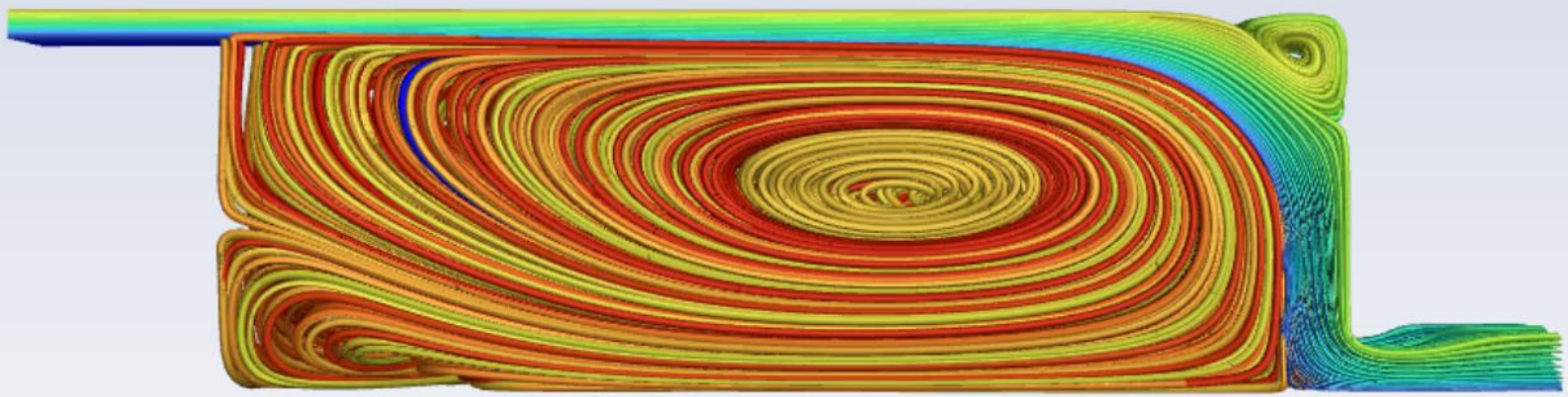
Update:

- So far 31 datasets + 31 papers on the repository (https://sites.google.com/view/futureurbanventilationnetwork/open-repository)
- It has been open since 2022 summer



This is the beta-version of the open Repository, providing information & links for the latest available datasets of Future Urban Ventilation Network. We will consider what you say(survey form) to improve the layout of the Repository. Or if you would like to provide a new dataset link to the Repository, please fill the New Entries Form.

The Repository contains information from field experiments, laboratory & physical modelling and CFD studies. Three ways to search for datasets are available:

- All datasets are shown below and the list can be searched and filtered according to a variety of criteria
- A geographical representation can be found in the Map section and
- Scientific articles related to the datasets are listed chronologically in Papers.

Project Name | Method | Morphology | Quantities

Corresponding Author | Institution | Search Paper | Search everything

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ACTUAL

Advanced Climate Technology: Urban Atmospheric Laboratory - field experiments in London

Method: Field experiment **Quantities:** Velocity, Concentration, Stability, Boundary layer depth, Temperature, Humidity, Solar radiation **Morphology:** Realistic

Corresponding Author: Janet Barlow

Project URL: http://www.actual.ac.uk

Data available from: Janet Barlow

Key article: Observations of wind speed profiles over Greater London, UK, using a Doppler lidar, 2013

Additional information: Data includes meteorological observations on BT Tower and Doppler lidar boundary layer profiles. Other published: The effect of the urban environment on wind driven infiltration of buildings (https://rdg.ent.sirsidynix.net.uk/client/en_GB/library/search/detailnonmodal/ent:$002f$002fSD_ILS$002f0$002fSD_ILS:1562862/ada?qu=urban&qf=UR_FORMAT%09Format%09THESIS%09Thesis&rw=12&lm=EXCL_LR2&rt=false%7C%7C%7CTITLE%7C%7C%7CTitle&isd=true)

Characteristics of indoor and outdoor exchange

Wind-tunnel experiments were employed to explore the characteristics of indoor/outdoor airflow and pollutant exchange in a building cluster

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Observations of wind speed profiles over Greater London, UK, using a Doppler lidar

2013

Drew et al.

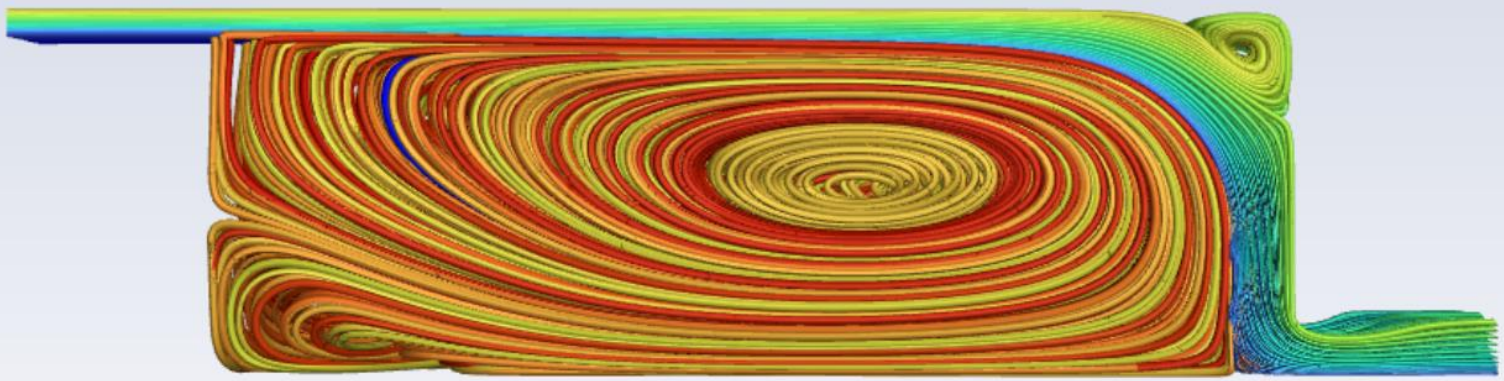
ACTUAL, Wind, Urban, Doppler lidar, Internal boundary layer, Roughness length, Morphology, Deaves Harris, Wind speed profile

A 6 m cube in an atmospheric boundary layer flow (parts 1 and 2)

2002

Hoxey, Richards, Short & Richards, Quinn, Parker

full-scale; wind; pressure; velocity; cube; wind-tunnel



- Urban Fluid Mechanics data portal
- QNET -CFD Knowledge Base
- Centre for Environmental Analysis (CEDA) archive
- AIJ Guideline for Practical Applications of CFD to Pedestriau Wind Environment around Buildings

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Our aim in the following year:

- Expand the number of datasets and papers on the repository (https://sites.google.com/view/futureurbanventilationnetwork/open-repository)
- A brief introduction of the repository will be written.

Your support and feedbacks are highly appreciated:

breathingcity.org **Open Repository** Back to FUVN site Papers Other resources Map About

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