

# 14<sup>th</sup> IWA/IAHR International Conference on Urban Drainage

September 10-15, 2017 | Prague, Czech Republic



## Workshop #2 - Urban Rainfall from Mobile Phone Networks Scientific Workshop

**Co-organized by:** International Working Group on Urban Rainfall (IGUR)

**Conveners/Lectures:**

**Martin Fencel**, *Czech Technical University in Prague, Czech Republic*

**Christian Chwala**, *Karlsruhe Institute of Technology, Germany*

**Jonas Olsson**, *Swedish Meteorological and Hydrological Institute, Sweden*

**Jörg Rieckermann**, *EAWAG, Switzerland*

**Vojtěch Bareš**, *Czech Technical University in Prague, Czech Republic*

**Goal:** Commercial microwave links (CMLs), pairs of telecommunication antennas used as a backbone of modern mobile phone networks, represent new source of rainfall information which is available at virtually no cost in most cities around the world. The workshop provides introduction to CML rainfall retrieval following the process chain from acquiring the raw CML data from cellular operators to final high resolution rainfall product ready for both real-time applications and hindcasting in urban stormwater management. Lectures are combined with practical exercises on processing of CML data and integrating with standard rain gauge measurements.

**Content:**

- Introduction to CML rainfall estimation, hardware and principles behind
- CML network characteristics, coverage, density
- Data acquisition, from reaching operators to retrieval and management of raw data
- Pre-processing of CML data, filtering outliers, baseline separation, correcting for systematic errors such as wet antenna attenuation
- Fusion with measurements from traditional rain gauges
- Spatial reconstruction, from path-integrated rainfall to gridded product
- Examples of application from European regions (Prague, CZ, Gothenburg, SWE, Germany)

[www.icud2017.org](http://www.icud2017.org)

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## Target participants:

Professionals and researchers in urban water management whose work rely on rainfall data (storm water management, rainfall-runoff modelling, early warning, real-time control of urban drainage), experts in rainfall monitoring. Workshop does not require experience with CML rainfall estimation. Workshop is open for nonICUD participants as well.

**Date and duration:** Prague Congress Centre, Sunday, September 10, 2017, 9:30-17:00

**Fee:** 2700 CZK (100 EUR)

Workshop fee includes technical documentation, tutorials, 2 coffee breaks, and lunch

**Registration:** Via ICUD online registration system at [www.icud2017.org](http://www.icud2017.org)

## Other requirements:

All participants need to bring own laptops

## Contact:

[info@icud2017.org](mailto:info@icud2017.org)

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