

## Data, Tools and Cultures in Architectural Research (Darmstadt, 23-24 Nov 23)

TU Darmstadt, Faculty of Architecture, Nov 23-24, 2023

Chris Dähne

Open Structures conference on Data, Tools and Cultures in Research. The advent of digitization has brought about significant changes in research on the built environment. Digital methods and technologies for manipulating data and matter are constantly being reconfigured, and with them our everyday practices of sharing, reusing and preserving data, tools and knowledge. Emerging approaches by international stakeholders to disclosure or non-disclosure of research-related data and tools have raised a pressing question for researchers regarding their position towards these developments.

OPEN STRUCTURES are needed to open up dynamic processes and interdisciplinary knowledge. The conference aims to foster the creation of interdisciplinary, open structures that can accommodate sustainable research in the fields of architecture, civil engineering and urbanism. By exploring data, tools and cultures, we aim to uncover transformative opportunities and chart a course toward a more sustainable future.

We are looking for novel perspectives that can create sustainable, flexible and adaptable infrastructures for data collection, processing, interpretation, exploration and dissemination.

The conference can be attended free of charge.

### PROGRAMME

THURSDAY, 23.11.2023 (DAY 1)

14:00-14:20 | Welcome words and introduction

14:20-17:30 | SESSION 1 – PROCESS CHAINS, DATA & STANDARDS

Session Introduction

Tobias Schwinn (University of Stuttgart), Andreas Noback (TU Darmstadt)

HBIM data process, difficulties, chances and changes

Ilka Viehmann (HTWK Leipzig)

Research Infrastructures and Architectural Thinking

Architecture Research Stage

Ferdinand List (UdK Berlin) & Michael Dürfend (TU Berlin)

An openly accessible database on physical measurement models in civil engineering experiences, challenges and obstacles

Baris Wenzel & Eberhard Möller (HKA Karlsruhe), Benjamin Schmid & Christiane Weber (University of Innsbruck)

## From Fragmentation to Integration

Institute Wide Research Data Management in Structural Engineering

Julian Unglaub, Hendrik Jahns & Klaus Thiele (TU Braunschweig)

### Session Discussion

all participants of the session

### 18:00 | KEYNOTE

Jakob Beetz

Professor of Design Computation

Faculty of Architecture | RWTH Aachen University

## FRIDAY, 24.11.2023 (DAY 2)

### 10:00–12:30 | SESSION 2 – SHARED TOOLS, PROCESSES & INFRASTRUCTURE

#### Session Introduction

Andrea Rossi (University of Kassel), Roger Winkler (TU Darmstadt)

#### Collective Documentation

Analyzing Environmental Degradation

Yevhenia Berchul, Katja Knecht, Olaf Mumm & Vanessa Miriam Carlow (TU Braunschweig)

#### Integrated Process

Advancing Point Cloud Processing and NURBS Modeling

Daria Dordina, Zaqi Fathis, Cyrill Milkau & Daniel Lordick (TU Dresden)

#### Software environments for computational architecture

the challenges of experiential learning

Nadja Gaudillière-Jami (TU Darmstadt)

### Session Discussion

all participants of the session

### 13:00–14:00 | Guided Tour through the Faculty of Architecture

### 14:00–16:00 | SESSION 3 – DIGITAL CULTURE, RESEARCH & SOCIETY ☒

#### Session Introduction

Dennis Pohl (TU Delft), Chris Dähne (Goethe University Frankfurt a.M., TU Darmstadt)

#### Hybrid Co-Creation

Phygitalising Computational Urban Planning

Viktoria Sandor (University of Innsbruck)

#### Architectural Mathematics for Parametric Design

Zlata Tošić, Aly Abdelmagid, Ahmed Elshafei & Daniel Lordick (TU Dresden)

#### Who Owns Architecture History?

Megacontractors and “Media Mix” in Japan

Matthew Mullane (Radboud University)

16:00–17:00 | Roundtable discussion with all organizing guests

#### ORGANIZATION

This conference is organized by FID BAUdigital (Roger Winkler, Chris Dähne, Andreas Noback, Stephan Tittel) together with the Institute for Computational Design and Construction (ICD) from University of Stuttgart, Department of Experimental Digital Design and Construction (EDEK) from University of Kassel and the interdisciplinary flagship project The New Open of the Design, Data, and Society Group at Delft University of Technology as well as our infrastructural partner NFDI4Ing with the Community Cluster 45 "architecture, civil and environmental engineering".

Any questions? Get in touch via [conference@open-structures.com](mailto:conference@open-structures.com).

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#### Reference:

ANN: Data, Tools and Cultures in Architectural Research (Darmstadt, 23-24 Nov 23). In: ArtHist.net, Nov 14, 2023 (accessed May 12, 2025), <<https://arthist.net/archive/40618>>.