



Friedrich-Alexander-Universität
Research Center for
Mathematics of Data | MoD

FAU MoD Lecture Series



Reverse typography and the theory of shape: Can old books be brought back to life?

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WHEN

Friday **June 19, 2026**
11:15H (Berlin time)

WHERE

On-site / Online

Friedrich-Alexander-Universität
Erlangen-Nürnberg (FAU).

Room **H21**

Cauerstraße 5b, 91058

Erlangen. Bavaria, Germany

Live-streaming:

<https://www.fau.tv/clip/id/63064>

Reverse typography is a technique that enables the shapes of printed characters to be extracted from scanned documents in digital form, recognised, and restored in a printable format. One of the aims of the technique developed by my team is to contribute to the history of typography. A more ambitious goal is to breathe new life into the many high-interest books gathering dust on library shelves, making them accessible in a fully digitised form that retains the original appearance. This will lead me to discuss how to overcome one of the main pitfalls of artificial intelligence: its tendency to 'hallucinate'. I will illustrate my talk with experiments performed on images of scanned books, shapes, and Chinese characters. In doing so, I will touch upon the underlying techniques stemming from the mathematical theory of planar shapes, the PDEs handling them, and their use in computer graphics.