DTU

Algorithms meet Data Compression

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ABSTRACT:

Modern societies generate and collect massive amounts of digital information for data-driven applications. To store and communicate this data efficiently we need to keep it in compressed form.

On the other hand, to make the data useful we need to perform computation on the uncompressed data leading to us to decompress the data first. This incurs a significant computational overhead and greatly limits the size of the data sets we can process.

My recent research focuses on avoiding this issue by designing algorithms that perform computations directly on the compressed data without decompression it first. In this talk, I will give an overview of some of the key ideas and challenges in the area and highlight recent results.