

PUNCHLunch –

the online lunch seminar of the PUNCH4NFDI Consortium

Every second Thursday, 12:30-13:30 hrs: keynote and discussion



Thursday, 11 November 2021, 12:30 hrs:

Prof. Volker Lindenstruth (FIAS)

“Green IT”

Abstract:

The average power consumption of data centers in Germany alone has been 2 GW in 2020 with the still rising trends. Therefore energy efficiency has become more important than ever. There are three major areas where the energy efficiency can be improved which are going to be addressed in the presentation. First there is the efficiency of the data centers. On average data centers have required 63% of the IT power for the cooling and the infrastructure of the data center. We have shown that this overhead can be below 7% on average. Further there is the computer architecture. There are several factors which increase the power consumption of a computer without providing more performance. Those will be outlined. And finally there is the algorithmic efficiency. These days processors do not get faster but more parallel. Multi and many core architectures are emerging everywhere. In addition processors implement vector infrastructure. In order to utilize that, the software has to be written accordingly. This will be outlined using a few examples.



GSI Green IT Cube

(<https://www.gsi.de/presse/mediathek/bilderdatenbank>)

Connection details:

ZOOM Meeting “PUNCHLunch seminar”: <https://desy.zoom.us/j/91916654877>

Webinar ID: 919 1665 4877, passcode: 481572

Next event:

Thursday, 25 November 2021, 12:30 hrs: Harry Enke – PUNCH4NFDI Collaborative Tools.

Connect to PUNCH4NFDI:

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