

A New Look on Data Parallelism: Space vs. Time

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Data Parallelism often is used synonymously with "forallloops or "mapfunctions. This leads to a perception of Data Parallelism as being a niche approach, mainly suitable for autoparallelisation attempts in the context of scientific codes written in Fortran or similar languages. In this talk we try to present a new look at Data Paralellism which suggests that Data Parallelism as programming model has far wider applicability. Furthermore, it seems that it is inherently better suited than many other approaches when it comes to generating code for various different modern multicore architectures.