
Markus Blatt
**Generic data structures for algebraic multigrid methods
applied to PDE systems**

Universitaet Stuttgart IPVS
Universitaetsstrae 38
70569 Stuttgart
Germany
`Markus.Blatt@ipvs.uni.stuttgart.de`
Peter Bastian

In this talk we present generic Matrix and Vector data structures supporting a recursive block structure. Using these it is easy to resemble structural information of PDE systems in different ways (e.g. variable-to-unknown mappings, variable-to-point mappings).

We will show that this allows for natural and efficient generic implementation of aggregation based algebraic multigrid methods for PDE systems.