Jan Brandts, Sergey Korotov, Michal Křížek, Jakub Šolc: On acute and nonobtuse simplicial partitions; Helsinki University of Technology, Institute of Mathematics, Research Reports A503 (2006).

**Abstract:** This paper surveys some interesting results on nonobtuse simplices. In particular, we recall path-simplices that generalize right triangles into higher dimensions. We also deal with partitions containing only acute or only nonobtuse simplices. Such partitions are relevant in piecewise polynomial approximation theory in general, and thus also in the finite element method. Finally, we show some applications of nonobtuse simplices in algebra, mathematical analysis, graph theory, in generating geodetical meshes, etc.

## AMS subject classifications: 51M20, 65N30

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