

János Karátson and Sergey Korotov: *Discrete maximum principles for FEM solutions of some nonlinear elliptic interface problems*; Helsinki University of Technology, Institute of Mathematics, Research Reports A510 (2006).

Abstract: *Discrete maximum principles are proved for finite element discretizations of nonlinear elliptic interface problems with jumps of the normal derivatives. The geometric conditions in the case of simplicial meshes are suitable acuteness or nonobtuseness properties.*

AMS subject classifications: 35B50, 35J65, 65N30, 65N50.

Keywords: nonlinear elliptic problem, interface problem, maximum principle, discrete maximum principle, finite element method, simplicial mesh.

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