

On BVPs in $l^\infty(A)$

Gerd Herzog, Roland Lemmert

Mathematisches Institut I, Universität Karlsruhe, D-76128 Karlsruhe, Germany

Gerd.Herzog@math.uni-karlsruhe.de

Roland.Lemmert@math.uni-karlsruhe.de

Abstract: We prove the existence of extremal solutions of Dirichlet boundary value problems for $u''_\alpha + f_\alpha(t, u, u'_\alpha) = 0$ in $l^\infty(A)$ between a generalized pair of upper and lower functions with respect to the coordinatewise ordering, and for f quasimonotone increasing in its second variable.

MS-Classification (2000): 34B15, 34G20

Keywords: boundary value problems, lower and upper functions, ODEs in sequence spaces, quasimonotone functions.