

## SOLVABILITY FOR A SYSTEM OF NONLINEAR FRACTIONAL HIGHER-ORDER THREE-POINT BOUNDARY VALUE PROBLEM

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*Abstract.* Existence of eigenvalues yielding single and multiple positive solutions for a system of higher order fractional differential equations along with boundary conditions is established. The results are obtained by the use of a Guo-Krasnosel'skii fixed point theorem in cones.

*Mathematics subject classification (2010):* 34B09, 34B15, 34B18, 34B27.

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