Positive solutions for systems of Riemann-Liouville fractional differential equations with coupled nonlocal boundary conditions

Rodica Luca Tudorache

"Gheorghe Asachi" Technical University of Iasi rlucatudor@yahoo.com

Alexandru Tudorache
"Gheorghe Asachi" Technical University of Iasi
alexandru.tudorache93@gmail.com

We investigate the existence and nonexistence of positive solutions for a system of Riemann-Liouville fractional differential equations with p-Laplacian operators, nonnegative nonlinearities and positive parameters, subject to coupled nonlocal boundary conditions which contain various fractional derivatives and Riemann-Stieltjes integrals. In the proof of the main existence results we use the Guo-Krasnosel'skii fixed point theorem.