

## Existence of positive solutions for a system of multi-point boundary value problems with p-Laplacian operator

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The paper is concerned with a multi-point boundary value problem system. we prove the existence of many positive solutions for

$$\begin{cases} (\phi_p(u'))' + q_1(t)f(t, u, v) = 0 & t \in (0, 1) \\ (\phi_p(v'))' + q_2(t)g(t, u, v) = 0 \end{cases}$$
$$\begin{cases} u(0) = \sum_{i=1}^n \alpha_i u(\xi_i) & , & u(1) = \sum_{i=1}^n \alpha_i u(\eta_i) \\ v(0) = \sum_{i=1}^n \beta_i v(\xi_i) & , & v(1) = \sum_{i=1}^n \beta_i v(\eta_i) \end{cases}$$

By using the fixed-point theorem of cone, we provide sufficient conditions under which the above system has positive solution.

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