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Positive solutions for singular ϕ -Laplacian BVPs on the positive half-line. (English)

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The authors are concerned with the existence of multiple positive solutions for a ϕ -Laplace boundary value problem on the half-line. The nonlinearity may exhibit a singularity at the origin with respect to the state variable. The results are proved by using the fixed point index theory on cones and the upper and lower solution method.

Reviewer: Pierpaolo Omari (Trieste)

MSC:

- [34B18](#) Positive solutions to nonlinear boundary value problems for ordinary differential equations
- [34B15](#) Nonlinear boundary value problems for ordinary differential equations
- [34B40](#) Boundary value problems on infinite intervals for ordinary differential equations
- [34B16](#) Singular nonlinear boundary value problems for ordinary differential equations
- [47H20](#) Semigroups of nonlinear operators

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