Positive stationary solution of non-coercive Kirchhoff equations with first order term

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Abstract

In this talk the existence of a positive solution of a class of Kirchhoff equations with first order terms is established. Variational techniques are not available in general, since the non-local coefficient is not autonomous and the source term depends on the gradient of the solution. Further, the problem is non-coercive due to the Neumann boundary condition. Examples showing that some PDEs arising in applications have a positive solution are also discussed.

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