

Weak positive solutions for semilinear singular elliptic problems

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SUMMARY

We give very simple existence proofs for positive solutions to some model semilinear singular elliptic problems by using a method of sub and supersolutions. The main ingredients in the proof are the Lax-Milgram Lemma and Hardy-Sobolev Inequality. We also give optimal regularity results for these solutions in the framework of Sobolev spaces.

Keywords: Semilinear elliptic equations, singular nonlinearity, lower and upper solutions technique, . . .

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