



“BOUNDARY BLOWUP” TYPE SUB-SOLUTIONS TO SEMILINEAR ELLIPTIC EQUATIONS WITH HARDY POTENTIAL

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Semilinear elliptic equations which give rise to solutions blowing up at the boundary are perturbed by a Hardy potential involving distance to the boundary. The size of this potential affects the existence of a certain type of solutions (large solutions): if the potential is too small, then no large solution exists. The presence of the Hardy potential requires a new definition of large solutions, following the pattern of the associated linear problem. Nonexistence and existence results for different types of solutions will be given. Considerations are based on a Phragmen-Lindelöf type theorem which enables to classify the solutions and sub-solutions according to their behavior near the boundary.

The results is a joint work with C. Bandle and W. Reichel.