Singular and Nonsingular Boundary Value Problems on Infinite Intervals

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Introduction

We begin this lecture with the remark that up to the late 1960's very little was known about boundary value problems on infinite intervals; in fact most of the known results required rather technical hypotheses and only applied to narrowly defined classes of problems. In recent years a mixture of classical analysis and *modern fixed point theory* has been employed to study these problems. This has resulted in some widely applicable results which we shall discuss.

*R.P. Agarwal, M. Meehan and D. O'Regan, Fixed Point Theory and Applications, Cambridge University Press, Cambridge, 2001 pp. 170.