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**LIU ANKAI**, Queens University

*A Generalization of the Compression Cone Method for Integral Equations with Changing Sign Green's Functions*

A new class of cone is proposed as a generalization to the compression cone techniques in studying existence of solutions for integral equations using fixed-point index. As a result, the method is shown to be more adaptable particularly in dealing with integral equations with changing sign Green's functions. We prove new results for semi-linear integral equations. Applications are illustrated by examples. Limitations of such new method are also discussed.