

An inverse problem for Fredholm-type integro–differential equations with application to pollution emission modelling

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Abstract

In this work we present an algorithm to approximate the solution of certain Fredholm-type integro–differential equations using Schauder bases as well as fixed point techniques. The existence and uniqueness of the solution is proven and some examples are presented. We also analyze the associated inverse problem by means of a collage-type result and we include an application to modelling of pollution emissions.

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