A program code for the numerical solution of integro-differential models

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A flexible and reliable program code to approximate the solution of Cauchy singular integro-differential equations is presented. The theoretical and algorithmic aspects of the problem have been treated by the authors in recent works. The aim of this paper is to present and discuss the code, recalling the most significant algorithmic steps: precisely the generation of the q.i. splines on which the approximation is based, their use in the discretization of the equations in hand and the description of the linear solving system. The program code, using Matlab, and some numerical results are given.

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