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A computationally efficient technique for solution of pulp washing models

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Abstract

An efficient numerical technique for the solution of mathematical model related to pulp washing is described along with the effect of various industrial parameters. The linear and non-linear models are solved using Quintic Hermite Collocation Method with Dirichlet's and mixed Robin's boundary conditions. Results are obtained by using MATLAB ode15s and are compared with analytic ones and other numerical techniques proposed by various researchers. The method is found to be stable by using the stability analysis and convergence criteria. The present method is more convenient, simple and refined for solving the two-point boundary value problems and the results are more robust than earlier techniques.

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