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**ON THE STABLE TRACKING PROBLEM FOR A SOLUTION
OF A DIFFERENTIAL EQUATION IN A HILBERT SPACE**

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We consider the problem of tracking a solution of a reference parabolic equation by a solution of another equation. A stable algorithm based on the extremal shift method is proposed for this problem. The algorithm is designed to work on a sufficiently large time interval where both equations operate.

Keywords: parabolic equation, tracking problem.

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