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A NONLINEAR IDENTIFICATION PROBLEM

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We consider a nonlinear dynamic system with an unknown vector parameter in its description. An observer can calculate the phase vector of this system on the interval $[0, T]$ with an error whose modulus does not exceed a small value $h > 0$. This information on the dynamics of the system should be used to find the unknown vector. We obtain constructive sufficient conditions under which it is possible to restore the unknown vector with decreasing error as the value of h tends to zero. It turns out that it is sufficient to use discrete measurements of the output of the system.

Keywords: identification, dynamic systems, inverse problems.

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