On the dynamical reconstruction of control in systems of differential equations with delay

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Problems of dynamical identification of unknown control acting upon a nonlinear system described by differential equations with delay are discussed. Under the measurements (with errors) of phase state of the system, a regularizing algorithm that allows to identify the control is indicated. The algorithm is stable with respect to informational noises and computational errors. The procedure suggested is based on the combination of the methods of the theory of guaranteed control and of the theory of ill-posed problems.