

ALGORITHMS OF SYNTHESIS OF CONTROLLERS BY USING THE PROCEDURS BOTH LMI AND H_2 -OPTIMIZATION

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ABSTRACT. Algorithm of synthesis of controller, which is using linear matrix inequalities is offered. Algorithm consist procedures of minimization of a norm of the matrix of this controller. As generalization of such algorithm, algorithm of synthesis of the robust controller, which is closed to given (for example, optimum controller obtained by methods H_2 -optimization) is brought. The effectiveness of the last algorithm is demonstrated on the example of synthesis of the system of stabilization of longitudinal dynamics of the aircraft A4D.