Numerical Optimization of PID-Controllers Using the Correct Motion detector in the Objective Function

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Abstract: Controller optimization for systems that are prone to fluctuations due to the specificity of the object model is difficult to implement numerical methods, even in the presence of a well-proven technique. The paper suggests ways of modifying the objective functions to solve this problem effectively. The effectiveness of the proposed approach is demonstrated by examples.

Key words: numerical optimization, controls, automation, modeling, dynamical systems, control accuracy

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