Application of Nonlinear Model Predictive Controllers to Chemical Processes

Model predictive controllers (MPC) are widely used by chemical industries to control complex processes. They are designed based on the efficient use of optimization algorithms to directly solve the control problem while including process operation constraints. Their success is due to the fact that such controllers can present a control strategy that is optimal with respect to operating costs while their design is intuitive.

One student is sought to participate in the development and application of MPC designs to representative chemical processes. The thesis will be primarily computational.

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