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Multicriterion synthesis of reactor facility control systems through minimization of integral quadratic estimations

The mathematical modeling of automatic control systems of WWER-1000 reactor with various regulator types is considered. The linear models of WWER-1000 nuclear reactor thermal power control systems are developed. The results of multicriterion synthesis of thermal power control systems of WWER-1000 nuclear reactor through minimization of the improved integral quadratic estimations has been presented. The linear models of productivity control systems of steam generator SGW-1000 are designed. The identification and multicriterion optimization of productivity control systems of steam generator SGW-1000 with various regulator types are executed.