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ABOUT THE MODEL PREDICTIVE CONTROL FOR PERMANENT MAGNET SYNCHRONOUS MACHINES

BY

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Abstract. This work analyses the model predictive control for the permanent magnet synchronous motors. The approach demonstrates the potential for improving the performance of permanent magnet synchronous motors. Results also indicate that new advanced control algorithms such as MPC can be successfully applied for improving performance of PMSM.

Keywords: permanent magnet motor, modeling, model predictive control, explicit solutions, PI controller.