Tesis Outline

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1 Introduction

2 Real-time feedback control

2.1 Plasma Control Systems (PCS's)

2.2 MARTe framework

2.3 Equilibrium and control algorithms

3 JT60-SA control design

3.1 Machine description

3.2 CREATE tools

3.3 Controller designs

3.4 QST tools implementation

3.5 Simulation results

4 ISTTOK operation and control design

4.1 Machine description

4.2 Real-time signals integration and correction

4.3 Extraction of plasma current contribution

4.4 Plasma position reconstruction

4.5 ISTTOK control improvement and implementation

4.6 Experimental results

5 Conclusions