

Abstract Submitted  
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**Stability Control for High-beta Plasmas on JT-60SA** G. MATSUNAGA, M. TAKECHI, S. SAKURAI, S. IDE, M. MATSUKAWA, N. OYAMA, N. AIBA, G. KURITA, Japan Atomic Energy Agency, A. FERRO, E. GAIO, L. NOVELLO, Consorzio RFX, Associazione Euratom-Enea sulla fusione, S. SAKASAI, Y. KAMADA, Japan Atomic Energy Agency, JT-60SA TEAM — JT-60SA is designed and under construction as fully superconducting tokamak under a combined project of the ITER satellite tokamak program of EU-JA (Broader Approach Activities) and the Japanese national program. One of the main purposes of JT-60SA is the steady-state high-beta operation above the ideal no-wall beta-limit with suppressing resistive wall modes (RWMs). In order to control the RWMs, the RWM control coils and error field correction coils (EFCCs) are to be installed. The current design of these coils composes of 18 sector coils (6 coils in toroidally and 3 coils in poloidally) so as to suppress  $n=1-3$  RWMs and to compensate various error fields. The EFCCs can also be utilized to apply the resonant magnetic perturbation to ergodize the peripheral magnetic field structure to mitigate and avoid the large edge localized modes. The design and analysis of these in-vessel tools for high-beta plasmas on JT-60SA will be presented.

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