

Direct Observation of the Resistive Wall Mode in a Tokamak and its Interaction with Plasma Rotation

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Using newly developed techniques and improved diagnostics, rotating wall-stabilized discharges have been maintained in the DIII-D tokamak for 30 characteristic resistive wall decay times — significantly longer than was previously achieved. The terminating resistive wall mode (RWM) has been directly identified using internal fluctuation diagnostics and its correlation with the slowdown in the plasma rotation is established.