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Fast Disruptions and Halo Currents in the International Disruption Database,* A.W. Hyatt, N.W. Eidietis, S.M. Flanagan, D.A. Humphreys, J.C. Wesley, *GA;* M.D. Walker, *SDSUF,* IDDB Multi-institutional Team — The International Disruption Database (IDDB) is an International Tokamak Physics Activity (ITPA) sponsored undertaking hosted at GA. It contains information from thousands of disrupted discharges on many tokamaks. Disruptions potentially apply very large forces and thermal loads on tokamak components. Delineating the expected extremes of disruption phenomena is essential to designing a tokamak that is robust to these off-normal events. Examples of database quantities include disruption current quench (CQ) time and the degree of toroidal asymmetry in the disruption halo currents. We present analysis of IDDB data using a simple isolated current ring model that puts all tokamaks on an equal footing, and shows that the fastest CQ times normalized by plasma area are about 0.6 ms/m^2. Some limitations of the simple model are discussed, and recent expansions of the IDDB data set with halo current data from DIII-D are described.

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