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**Database Analysis of Disruption Frequency in DIII-D<sup>1</sup>**

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The disruptivity of a tokamak fusion reactor is a major design and cost factor as design complexity increases with the total number of disruptions allowed. Historically, studies have measured disruption probabilities by binning discharges according to parameters such as normalized beta, density, and safety factor measured at some point during the discharge and calculating the fraction in each bin which disrupt. However, global statistics ignore the fact that most disruptions have identifiable causes which are often unrelated to the discharges inherent reliability in steady-state operation. These can include details of the discharge evolution, unusual operational practices required for a particular experiment, and equipment failures. We address this question by analyzing a database of several hundred discharges with controls for operational practices, external hardware related disruptions and experimental probing of stability limits. Disruption rates per discharge and per unit time will be presented.

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Prefer Oral Session  
 Prefer Poster Session

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Special instructions: DIII-D Poster Session 1, immediately following M Makowski

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