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Application of the Disruption Predictor Feature Developer to developing a machine-portable disruption predictor MATTHEW PARSONS[1], WILLIAM TANG, ELIOT FEIBUSH, Princeton Plasma Physics Lab — Plasma disruptions pose a major threat to the operation of tokamaks which confine a large amount of stored energy. In order to effectively mitigate this damage it is necessary to predict an oncoming disruption with sufficient warning time to take mitigative action. Machine learning approaches to this problem have shown promise but require further developments to address (1) the need for machine-portable predictors and (2) the availability of multi-dimensional signal inputs. Here we demonstrate progress in these two areas by applying the Disruption Predictor Feature Developer to data from JET and NSTX, and discuss topics of focus for ongoing work in support of ITER.

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