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Zhibek Kadyrsizova, Jennifer Kenkel, Janet Page, Jyoti Singh, Karen E Smith, Adela Vraciu* (vraciu@math.sc.edu) and Emily Witt. Bounds for F-pure threshold and extremal singularitites in positive characteristic.

For a hypersurface over a field in positive characteristic, the F-pure threshold can be viewed as a measure of the singularity. More singular hypersurfaces have lower F-pure thresholds. The degree also gives a measure of the singularity and it provides a bound for the F-pure threshold. We describe and classify hypersurfaces that have the lowest possible F-pure threshold, taking the degree into consideration. (Received September 12, 2020)