1143-13-543 **Pedro Teixeira*** (pteixeir@knox.edu). *Syzygy gap fractals and the F-pure threshold of certain binary forms.* Preliminary report.

We examine the F-pure thresholds of certain homogeneous polynomials in two variables with four distinct roots in $\mathbb{P}^1$. Results on the structure of syzygy gap fractals, and in particular a bound on syzygy gaps obtained by Monsky, yield an explicit formula for the F-pure threshold of such a polynomial. This formula depends on the vanishing of Deuring polynomials at the cross-ratio of the four roots of the polynomial, and reproduces and generalizes a result of Pagi. (Received August 21, 2018)