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Karl Liechty*, kliechty@depaul.edu. *A deformation of the Tracy-Widom GOE distribution.* Preliminary report.

In random matrix theory the Tracy-Widom GOE distribution describes the location of the largest eigenvalue of large real symmetric random matrices. It also describes height fluctuations certain random growth models in the KPZ universality class, and can be characterized as the maximum value of the Airy process minus a parabola. We use this characterization to study a natural transition between the Tracy-Widom GOE distribution and the Gaussian distribution. Namely we study the maximum value of the Airy process with wanderers whose marginal distributions correspond to spiked complex Hermitian random matrix models like GUE. We present both Fredholm determinant and Painlevé formulas for the distribution of this maximum. This is joint work with Daniel Remenik. (Received September 17, 2019)