Supplemental Material: Parameters for the Opacity Calculation

For the parameters to calculate the alpha values from Section 6.2.2, $\alpha(x) = c + m(x+b)^{-k}$, we used the following values:

- $c = 10^{-3}$
- $m = 2 \cdot 10^4$
- $b = 2.5 \cdot 10^3$
- *k* = 1.5

To determine the parameters, we implemented a slider for the manual adjustment of the alpha value of the glyphs. With that slider, we determined appropriate alpha values empirically for event subsets of different sizes, yielding the *measured function*. Afterwards, we selected the parameters of the alpha function to fit the function to the measured values, see Figure 1. In this context, the parameters influenced the shape of the function as indicated in Figure 2.

In addition, we limited the values of the alpha function to stay between 0.002 and 0.3.

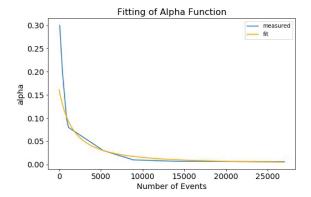


Figure 1: The figure displays the measured function in blue and the fit alpha function in orange.

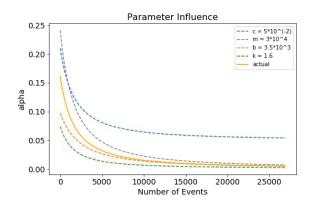


Figure 2: The figure displays the influence of the different parameters on the alpha function when increasing them separately.