Sensitivity analysis

August 14, 2018

To attend the request o Reviewer #2, we analyzed the sensibility of the parameters $H_{tmin} = \alpha_{H_{tmin}} R$, $H_{tmax} = \alpha_{H_{tmax}} R$, and $D_{cmax} = \alpha_{D_{cmax}} R$ used in text extraction (Section III.A), where R is the resolution in pixels/mm. We empirically adopted $\alpha_{H_{tmin}} = 1.8$, $H_{tmax} = 5.5$, and $D_{cmax} = 1.2$, respectively.

The sensitivity analysis was conducted in a one-factor-at-a-time (OAT) approach, i.e., the influence of a single variable is measured by changing its value in a certain range and keeping the other variables fixed. Each variable $\alpha_\bullet$ is assigned a set of evenly spaced values ranging from 80% to 120% of its original value (i.e., the value considered in the experiments). These values, and the resulting mean accuracy, is shown in Figure 1.

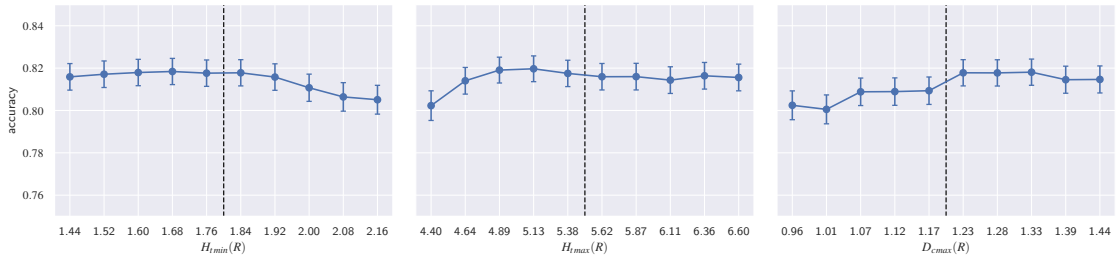

Figure 1: Mean accuracy across $\alpha_\bullet$ analysis of the variables $\alpha_{H_{tmin}}$, $\alpha_{H_{tmax}}$, and $\alpha_{D_{cmax}}$.