1 Comparison LC^2 vs DISA-LC^2

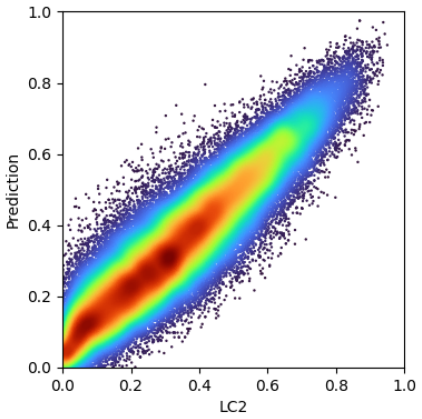

Fig. 1: Heat-scatterplot of the model prediction on the validation set

2 Probe deformation model

(MR: *Here α is used again, should use a different letter*)
We model the displacement due to the probe pressure as a spherical compression originating from a point $\mathbf{c}$ and acting from distance r up to distance R. Our model has two parameters: $\alpha \in [0, 1]$ controls the intensity of the deformation, while $\beta \in [0, 10]$ controls the rate at which the deformation dissipates. Concretely we formulate the displacement of a point $\mathbf{p}$ as follows:

$$\mathbf{d}(\mathbf{p}, \alpha, \beta) = \alpha R \frac{\mathbf{p} - \mathbf{c}}{\|\mathbf{p} - \mathbf{c}\|} f(\|\mathbf{p} - \mathbf{c}\|)^{1+\beta} \text{ where } f(x) = \begin{cases} \frac{10x}{8r} & \text{if } x < \frac{8}{10}r \\ 1 & \text{if } kr \leq x \leq r \\ 1 - \frac{x-r}{R-r} & \text{if } r < x \leq R \\ 0 & \text{if } x > R \end{cases}.$$