

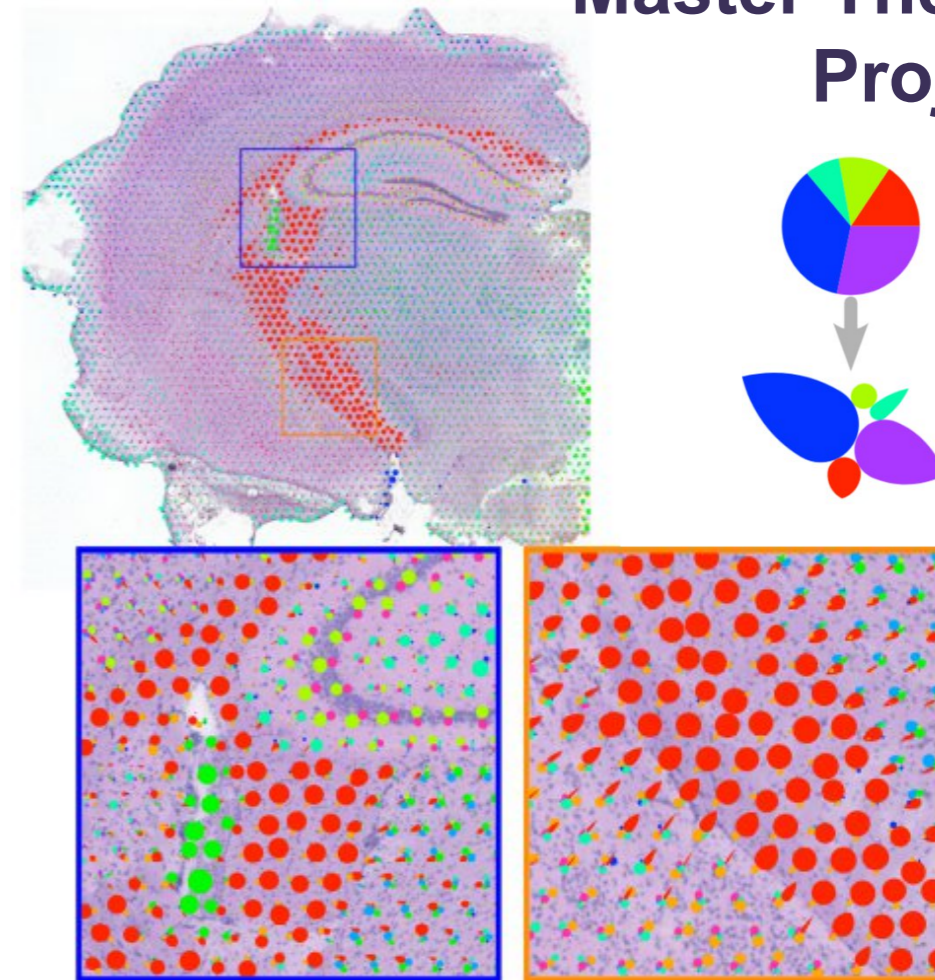
2026-T3 Droplets: A Marker Design for Enhancing Cluster Association

A recently published^[1] novel glyph, consisting of droplets shapes with varying sizes and levels of eccentricity allows to reasonably convey proportional relations superimposed on a spatial embedding. This versatile can be used, e.g., for showing region-wise cell-type compositions in tissue samples, land usage over satellite images, sociodemographic/political distributions on maps.

While the base design has been shown to be effective for the given use case the actual benefit over existing solutions needs to be proved empirically through perceptual comparison studies.

Besides that there are several ideas for extension and further adjustments, including clustering and aggregation as a pre-processing step, adaption for 3D space, lenses, and interactive visualizations, among others.

Bachelor Thesis Master Thesis Project



Droplets glyph applied to spatial cell type distribution, superimposed to a colored coronal cut of a mouse brain. Source: [1].

^[1]Lengauer, S., Waldert, P., Schreck, T., "Droplets: A Marker Design for visually enhancing Local Cluster Association" in *BioMed+VIS Challenge @ IEEE VIS*, 2024. <https://doi.org/10.5281/zenodo.14049796>.
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