sift! TEXTURE DESCRIPTION FOR UNDERSTANDING BREAST U

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Abstract

Texture is a powerful cue for describing structures that show a high degree of similarity in their image intensity patterns. This paper describes the use of **sift!** (**sift!**), both as low-level and high-level descriptors, applied to differentiate the tissues present in breast US images. For the low-level texture descriptors case, **sift!** descriptors are extracted from a regular grid. The high-level texture descriptor is build as a **bof!** (**bof!**) of **sift!** descriptors. Experimental results are provided showing the validity of the proposed approach for describing the tissues in breast US images.

Problem definition

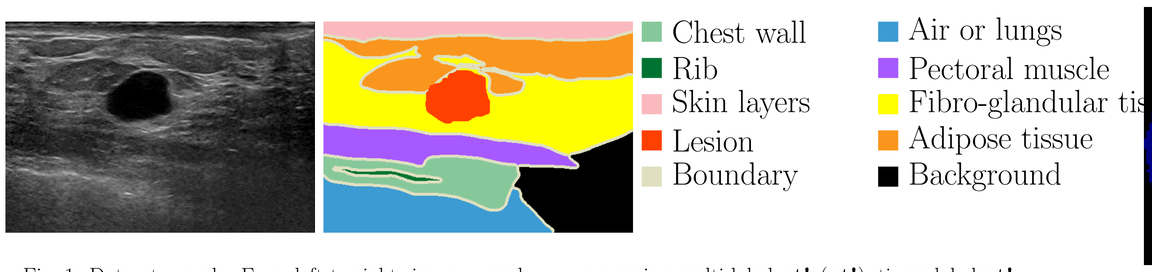

Fig. 1: Dataset sample. From left to right: image sample, accompanying multi-label **gt!** (**gt!**), tissue label **gt!** color-coding.

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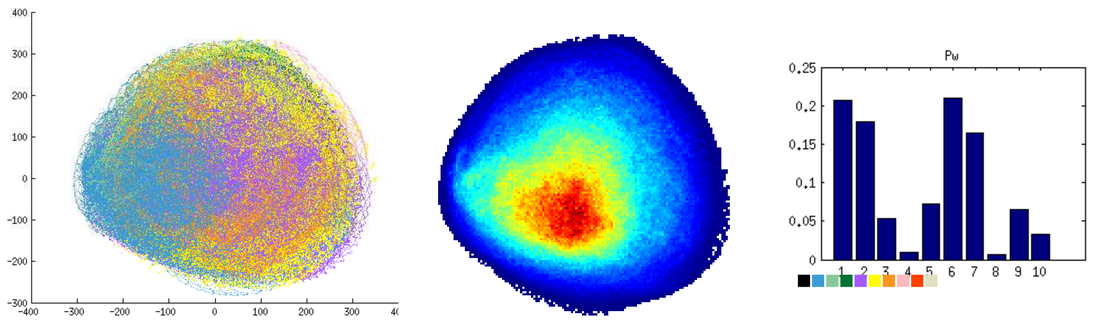

Fig. 2: **sift!** space. (a) Projected space colored according to **gt!** tissue labeling. (b) $P(\bar{x}_a)$. (c) $P(\omega)$.

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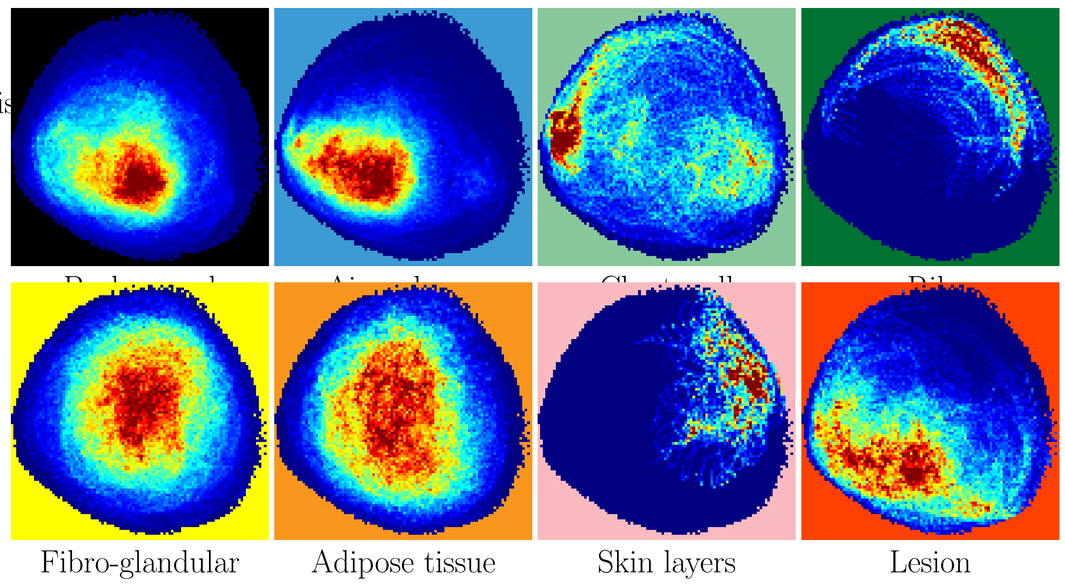

Fig. 3: Distribution of the **sift!** descriptors for some classes in the **gt!**.

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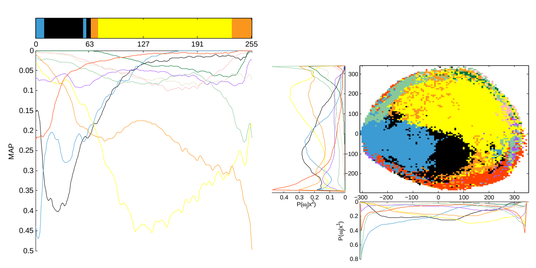

Fig. 4: Qualitative evaluation of the **map!** (**map!**) labeling of the feature space.

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hello world !!

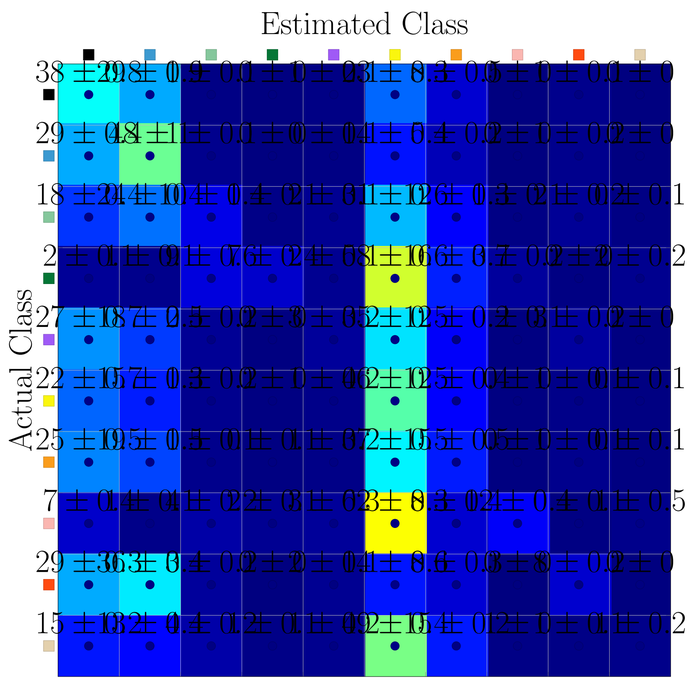

Fig. 5: some caption

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