Selecting the Optimal Color Scheme for Laser Speckle Imaging Visualization

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Laser Speckle Imaging (LSI) is widely used in the biomedical field. The LSI method is based on the change in light scattering due to interference caused by scattering particles such as red blood cells inside blood vessels. One of the applications of LSI is outlining the vasculature and tissue perfusion. Color mapping is often used for enhancing areas of interest with specific functional and anatomical properties. Nevertheless, there is not enough discussion within the scientific community regarding the optimal usage of different color schemes for LSI. The colors that are selected for image visualization play a key role in obtaining satisfactory results. Here we will be discussing both the benefits and limitations of color mapping and the optimal color scheme for LSI visualization.