Supplementary file

A noise-resistant and annotation-free supervoxel-based algorithm for rapid segmentation of multiphase X-ray images

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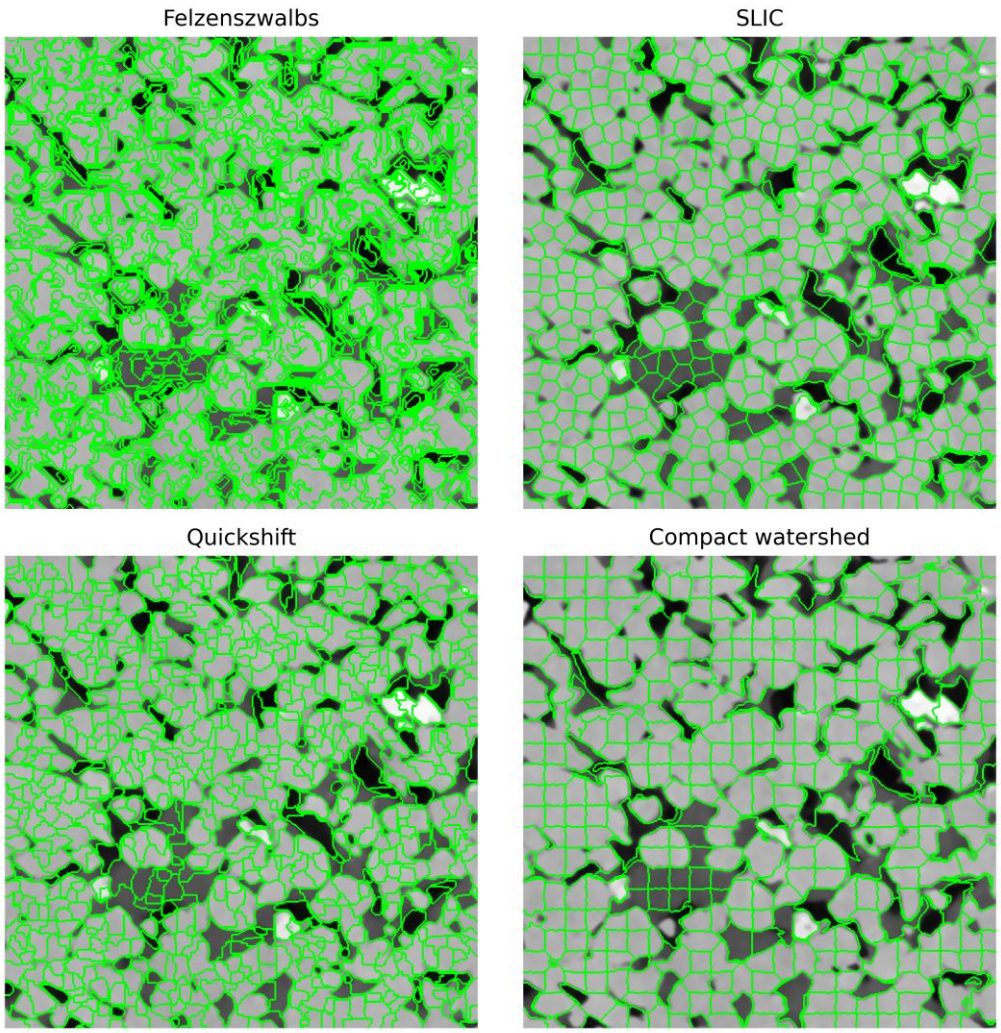

Fig. S1. Comparison of superpixel algorithm performance. (a)-(e) showcase the superpixel segmentation results of Felzenszwalb (Stutz et al., 2018), SLIC (Achanta et al., 2012), Quickshift (Vedaldi and Soatto, 2008), and Compact Watershed (Vincent and Soille, 1991)] algorithms applied to two-dimensional slices of three-dimensional Bentheimer sandstone raw X-ray images.

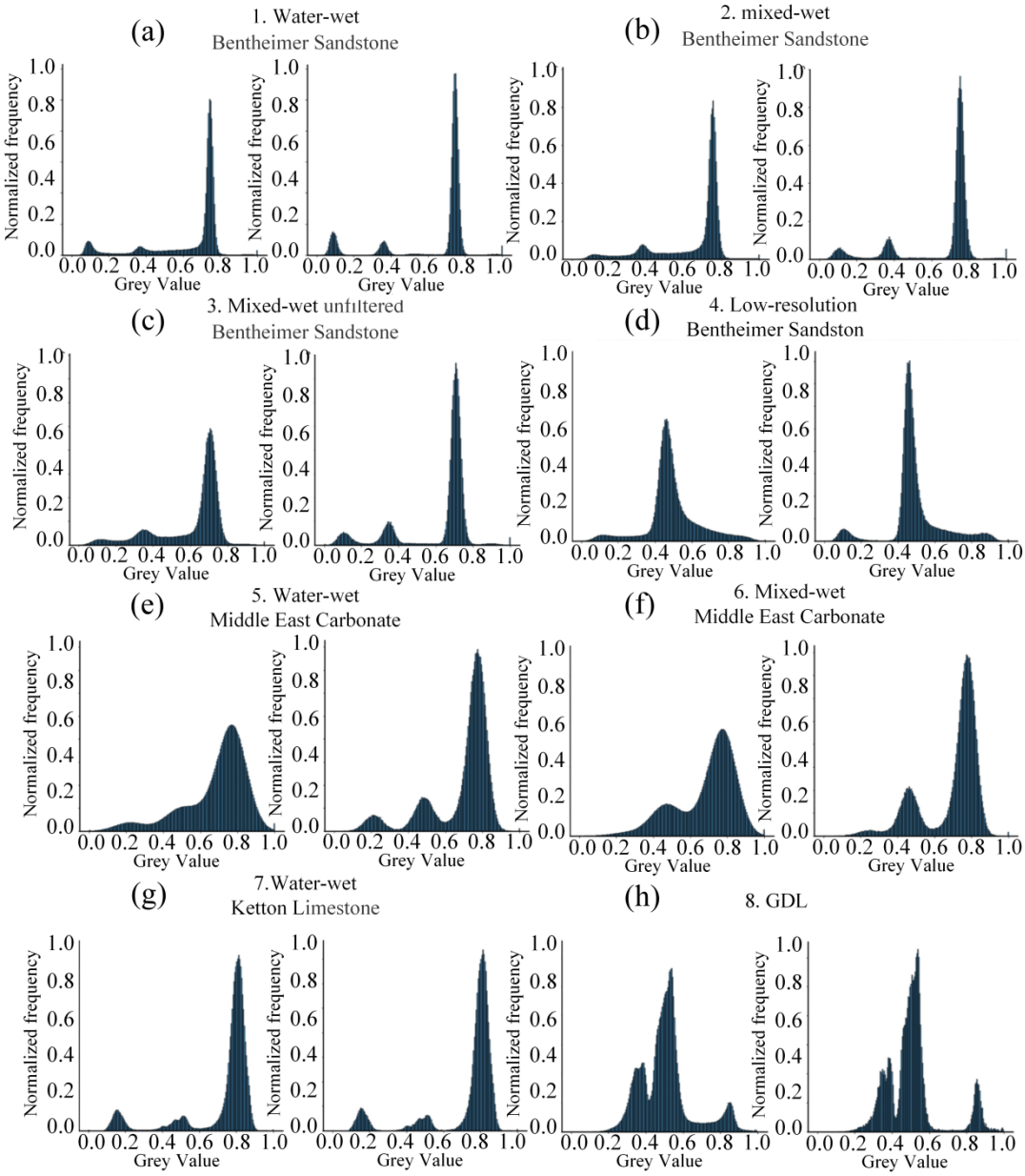

Fig. S2. Gray-scale histogram changes. Gray-scale histogram distributions before (left) and after (right) applying supervoxel segmentation.

Data Availability:

The micro-CT data used in this paper can be accessed through the Digital Rocks Portal.

Image 1: https://www.digitalrocksportal.org/projects/157

Images 2 and 3: https://www.digitalrocksportal.org/projects/263

Image 4:https://www.digitalrocksportal.org/projects/172

Images 5 and 6: https://www.digitalrocksportal.org/projects/151

Image 7: https://www.digitalrocksportal.org/projects/125

Image 8: https://www.digitalrocksportal.org/projects/462

The code is available on GitHub: https://github.com/ImperialCollegeLondon/Supervoxel-segmentation-for-multiphase-X-ray-images.