

Cecilia Ostertag & Marie Beurton-Aimar, Using Graph Neural Networks to Reconstruct Ancient Documents.

Alberto Del Bimbo, Rita Cucchiara, Stan Sclaroff, Giovanni Maria Farinella, Tao Mei, Marco Bertini, Hugo Jair Escalante & Roberto Vezzani (edd.), Pattern Recognition. ICPR International Workshops and Challenges. Virtual Event, January 10-15, 2021. Proceedings. Part VII = Lecture Notes in Computer Science. 12667 (Cham, Suisse, 2021) pp. 39-53, figg.

1. Introduction. - 2. Related works. - 3. Automatic Reconstruction using a ConvCNN: 3.1. Creation of a ground truth Dataset [the image data consists in 5959 papyrus images, taken from the University of Michigan Library's papyrology collection, containing documents dating from 1000 BCE to 1000 CE]; - 3.2. Model architecture; - 3.3. Experiments and results. - 4. Interactive visualization of assembly proposals: 4.1. Graphical Interface; - 4.2. Examples of image reconstructions; - 4.3. Reconstructions from multiple images. - 5. Discussion and conclusion.

2021-0598