Appendix A: An example of Ricci flow

We provide an example to elaborate that our clustering algorithm adaptively divides meshes into patches. As shown in Fig. 8, the details of the clustering algorithm can be explained as follows. Firstly, take two connected vertices in meshes, such as $V_i$ and $V_j$ in Fig. 8. Then, we sampling the neighbors with similar directional curvature of $V_i$ and $V_j$ based on the fast seed expansion algorithm in Sec. 3.2. In this case, the sampling results show that $V_i$ and $V_j$ have the same neighbors, so $W$ is 0, which is less than the edge weight $S_{ij} = 10^{-5}$. Therefore, the Ricci curvature $\kappa$ is positive, and these two vertices will be clustered into one patch by running Ricci flow. Following the same process, vertices with similar directional curvature will be clustered into one patch, and the whole mesh will be split into patches having similar directional curvature, as shown in Fig. 8. The implementation of MeshFormer can be found at https://github.com/MeshFormer/MeshFormer.