## **Supplementary information, Figure S1**

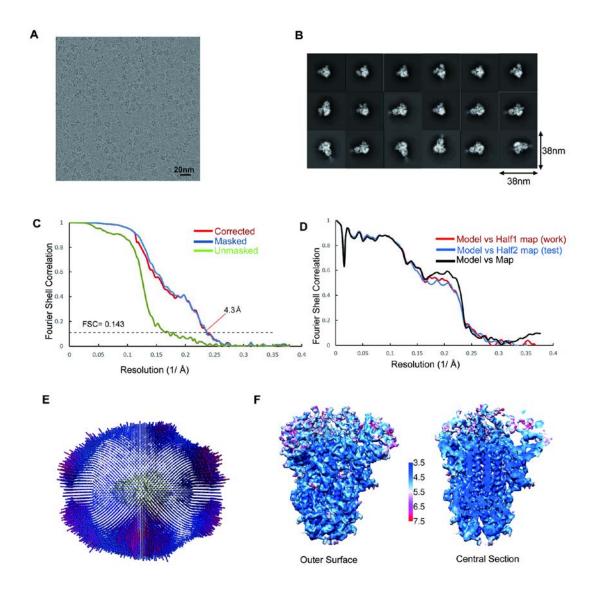


Figure S1 SARS-CoV S trimer structural determination with C3 symmetry. (A) A representative cryo-EM raw micrograph of the SARS-CoV S trimer. (B) Representative reference-free 2D class averages. (C) Fourier shell correlation (FSC) curves of the unmasked half maps (green), the masked half maps (blue), the corrected half maps after taking the mask contribution into account (red). (D) FSC curves of the model versus the half map used (Half1 map, FSCwork, red) or not used (Half2 map,

FSCfree, blue) for the model refinement, and the final model versus the map used for refinement (black). (E) Particle orientation distribution of the last round refinement shown around the corresponding EM map. (F) Local resolution map of the symmetric SARS-CoV S trimer shown on the outer surface (left) and a central cross-section (right) of the EM map.