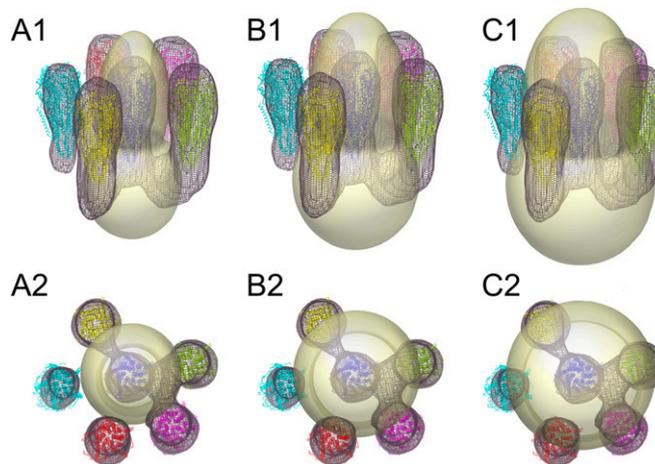
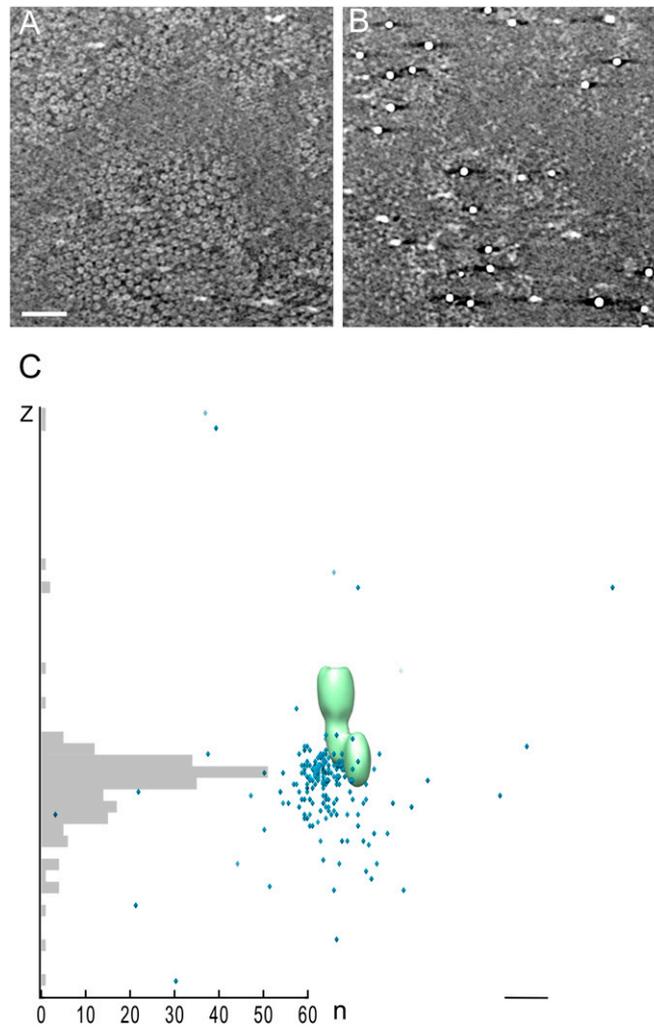


# Supporting Information

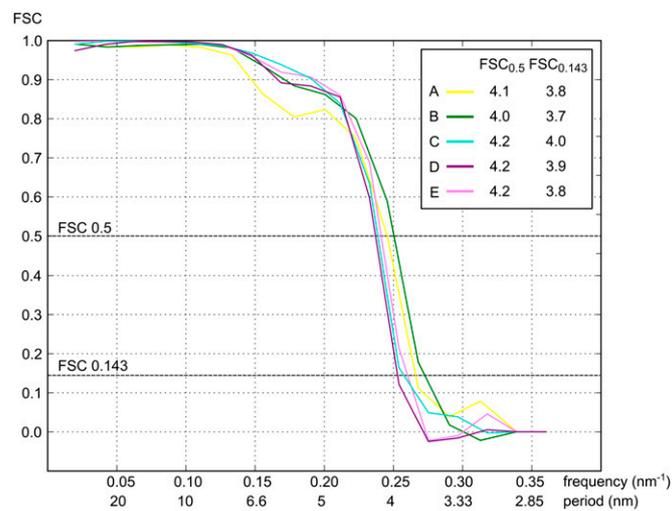
Zuber and Unwin 10.1073/pnas.1301277110



**Fig. S1.** Nonbinary mask used for subtomogram classification. The density of the mask extends between 0 and 1. The soft transition between the inside and the outside of the mask was achieved by a Gaussian falloff. The mask is represented here as an isosurface at three different thresholds: 0.9 (A1 and A2), 0.5 (B1 and B2), and 0.1 (C1 and C2) and the spherically masked average is represented as a mesh contour with docked acetylcholine receptor ribbon models. Both side views (A1–C1) and bottom view (A2–C2) are shown.



**Fig. S2.** Rapsyn gold immunolabeling. (A) Slice cross-sectioning the extracellular domain of several receptors in a tomogram of postsynaptic membranes immunogold labeled for rapsyn. (B) Slice with the same  $xy$  coordinates taken at the level of the cytoplasmic tip of the receptors. Several gold beads are visible. (C) The position of each gold bead relative to the nearest receptor is represented by a turquoise dot. A histogram of the position of the gold beads along the  $z$  axis is represented in gray; 90% of the beads were confined to a 24-nm-thick  $z$  slice, and 80% were confined to a 14-nm-thick  $z$  slice. (Scale bars: 50 nm in A and B; 10 nm in C.)



**Fig. S3.** Fourier shell correlation plot of the 5 class averages shown in Fig. 2. Two commonly used resolution criteria are indicated (Fourier shell correlation threshold 0.5 and 0.143).