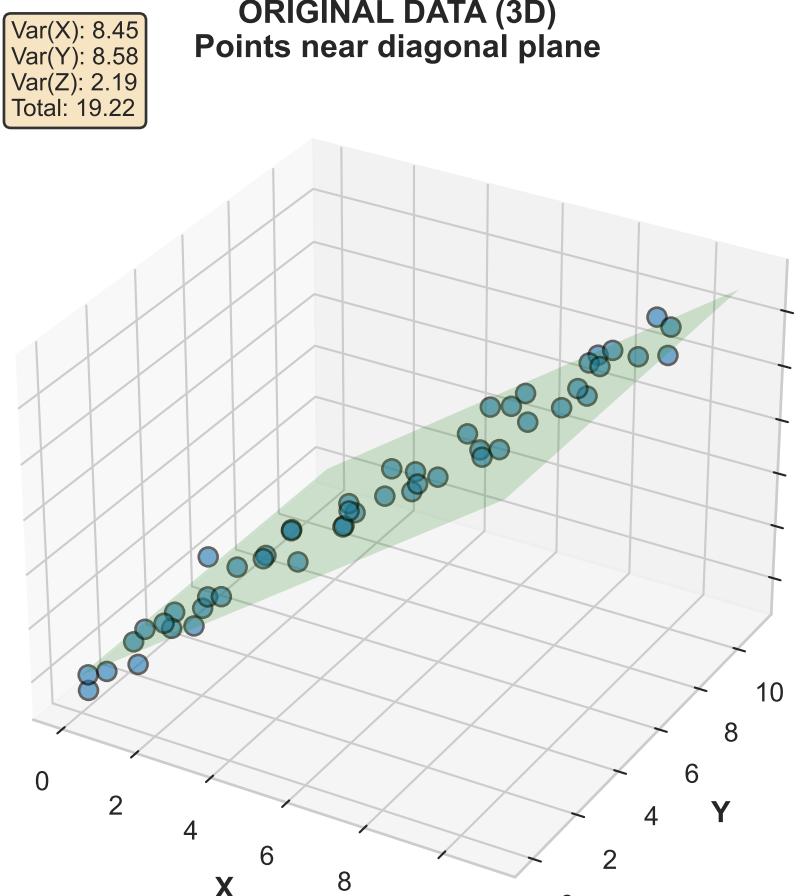
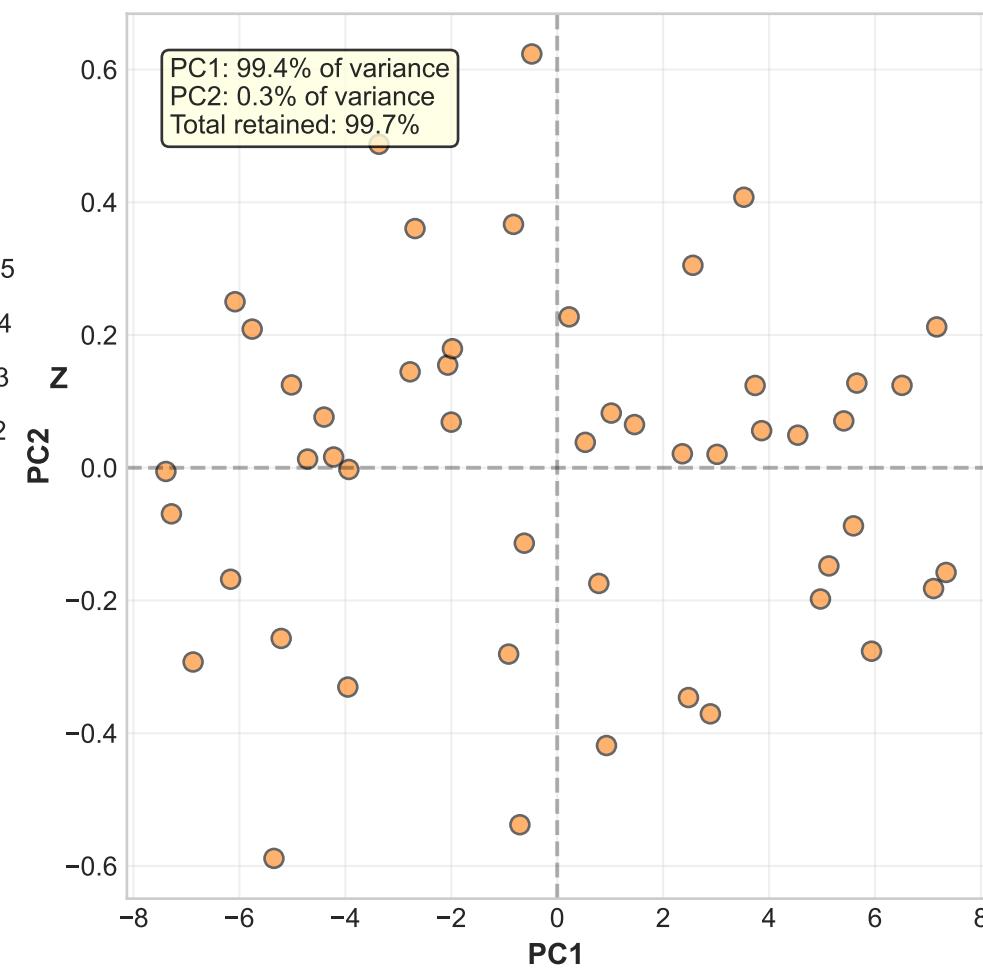


DIMENSIONALITY REDUCTION: From 3D to 2D with PCA

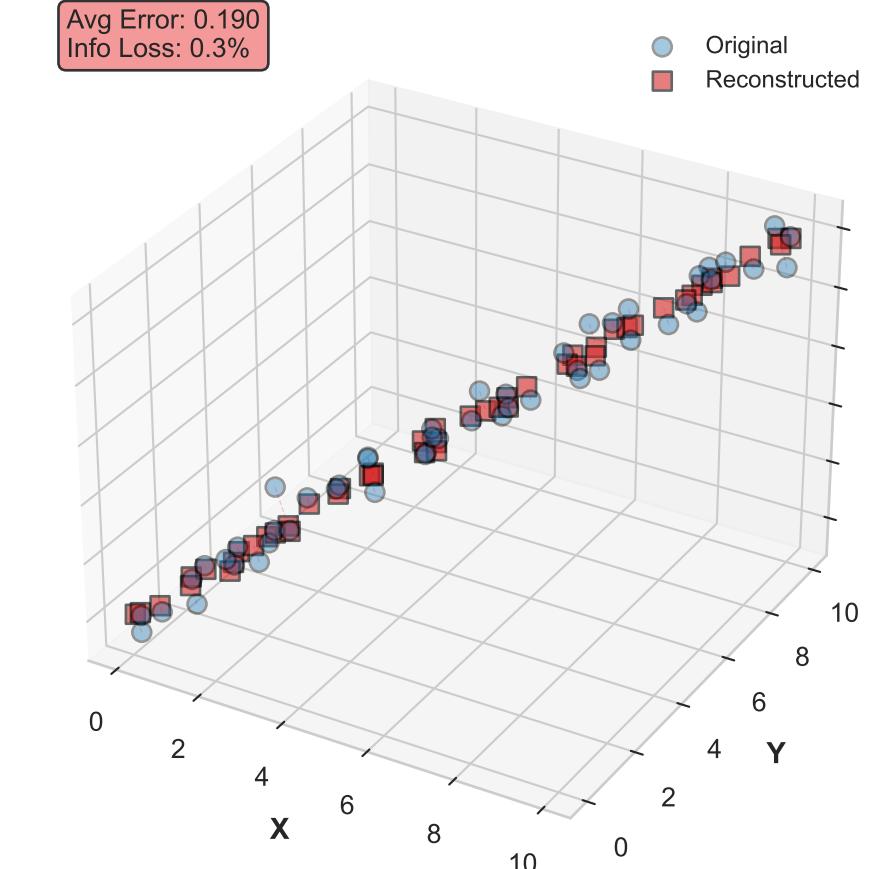
ORIGINAL DATA (3D)
Points near diagonal plane



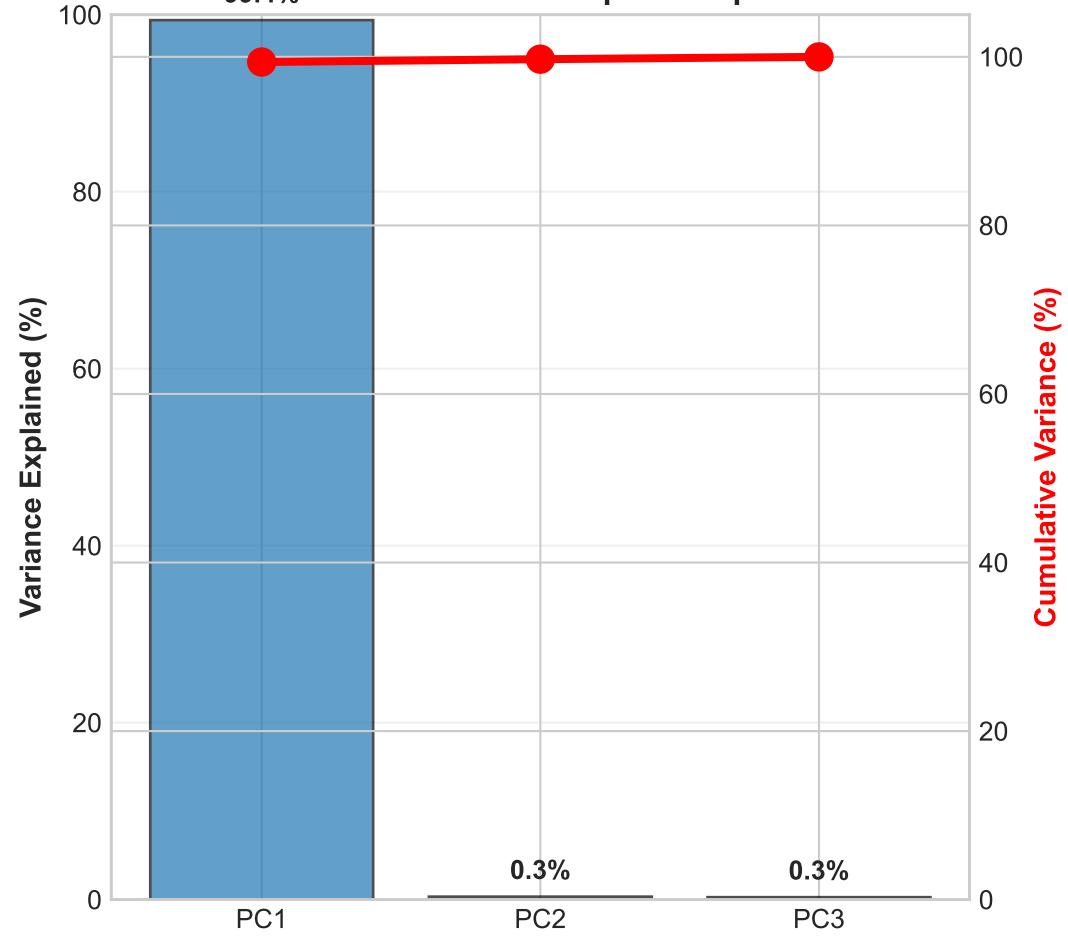
PCA PROJECTION (2D)
Maximum variance directions



RECONSTRUCTION (3D)
From 2D back to 3D



SCREE PLOT: Variance per Component



PROJECTION EXAMPLES

Point	Original (x,y,z)	PC1, PC2	Reconstructed
#1	(0.1,0.1,-0.3)	(-7.4,-0.0)	(0.0,0.1,0.0)
#16	(2.9,3.5,1.6)	(-2.7,0.4)	(2.9,3.5,1.5)
#31	(5.9,6.1,2.8)	(1.5,0.1)	(5.9,6.0,3.0)

COMPRESSION TRADE-OFF

