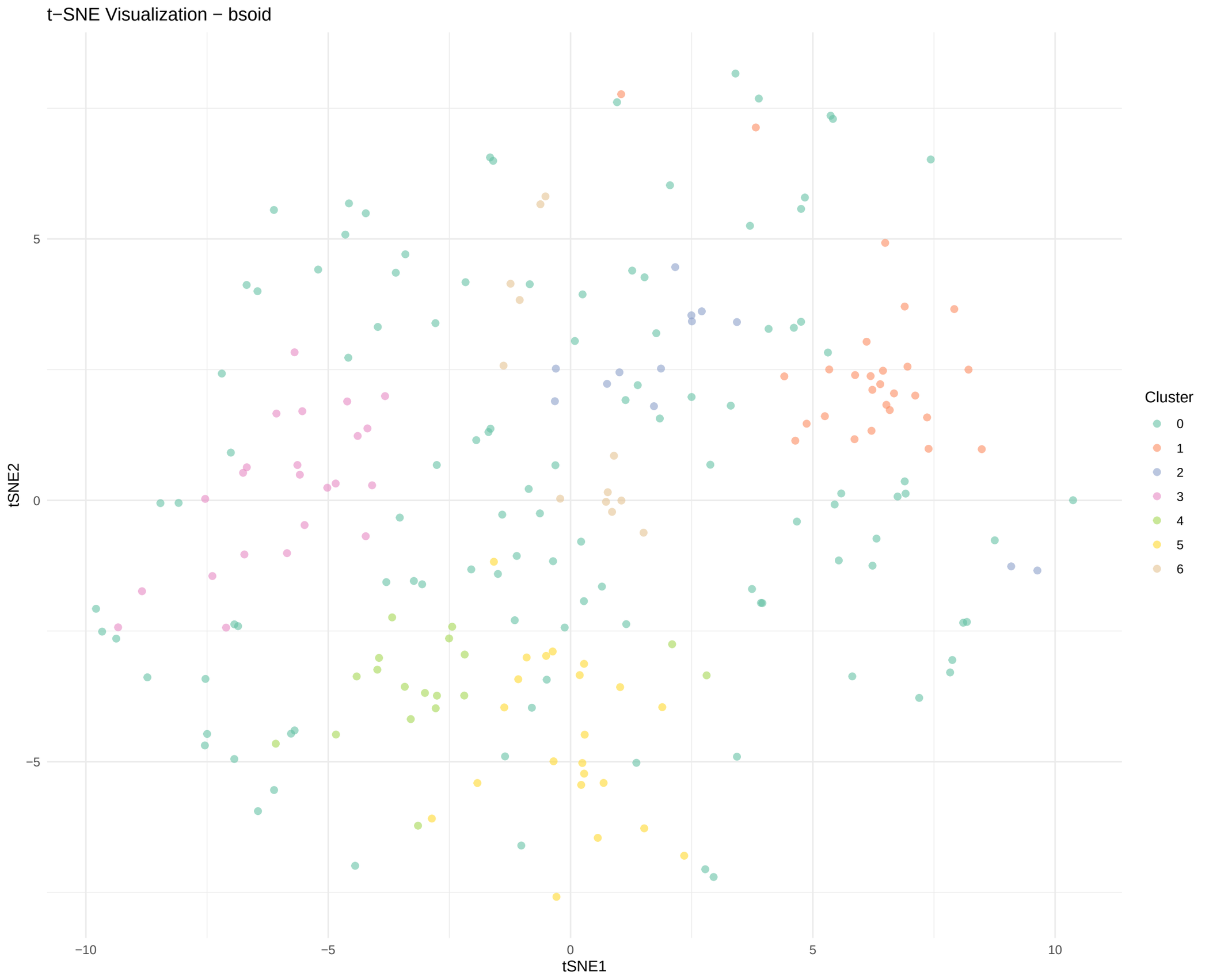
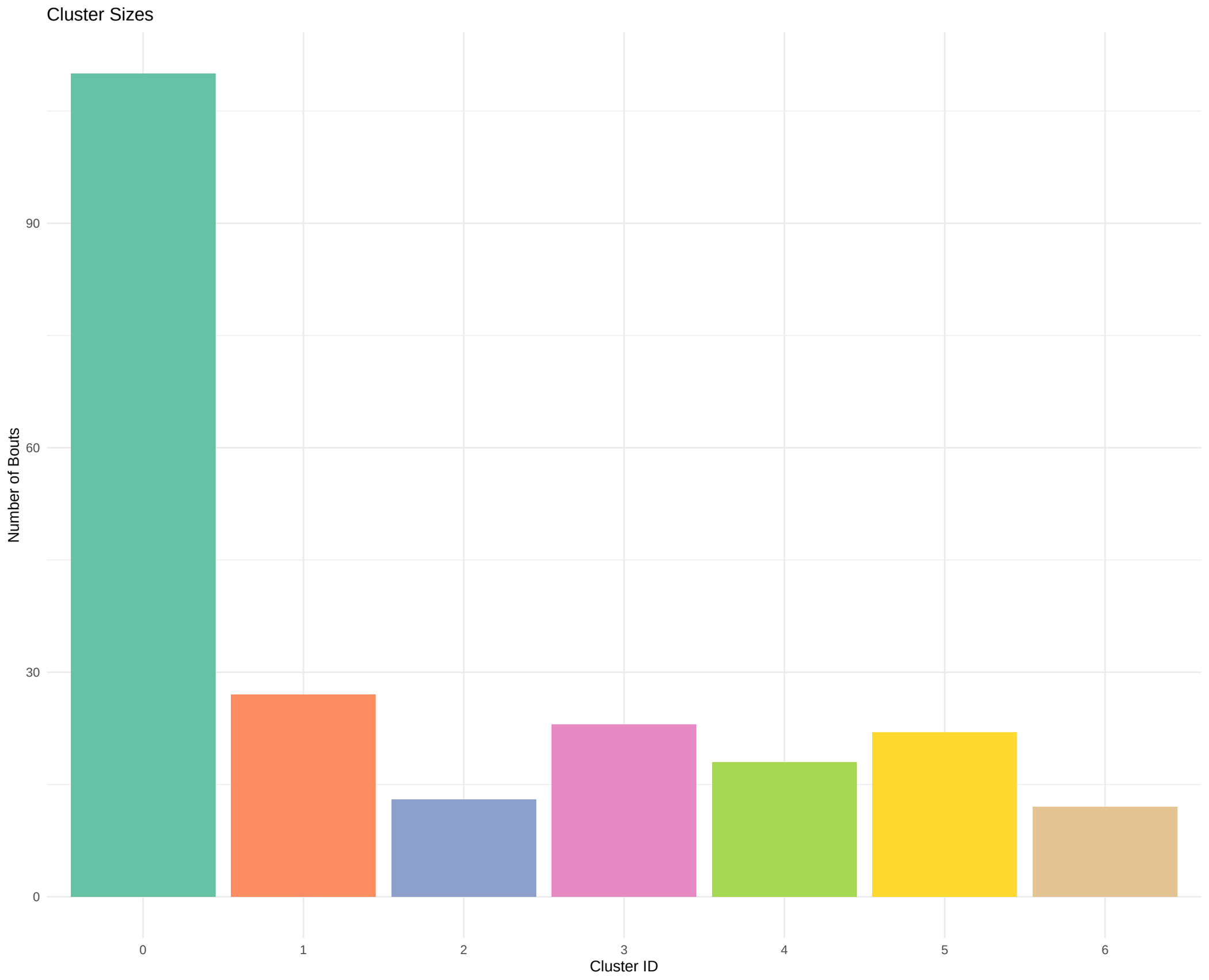
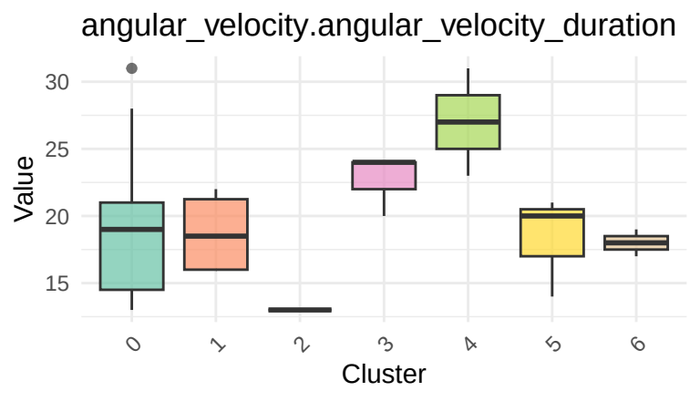
Interpretation: Principal Component Analysis (PCA) reduces high−dimensional feature space to 2D. Each point represents a bout, colored by cluster. PC1 and PC2 are linear combinations of original features that capture the most varia



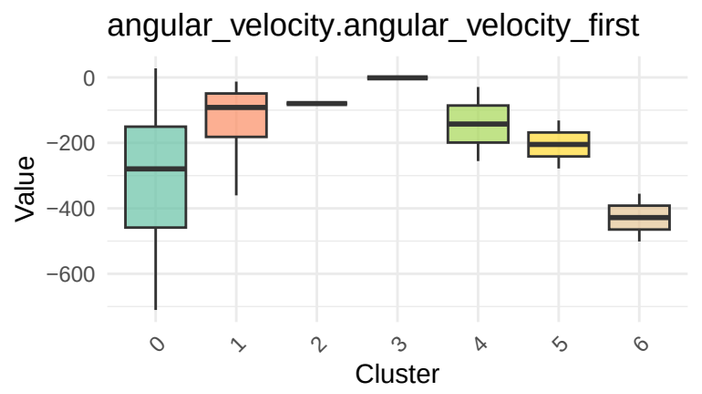
Interpretation: t−SNE (t−distributed Stochastic Neighbor Embedding) is a non−linear dimensionality reduction technique that preserves local neighborhood structure. Points close in the original high−dimensional space remain close in 2D



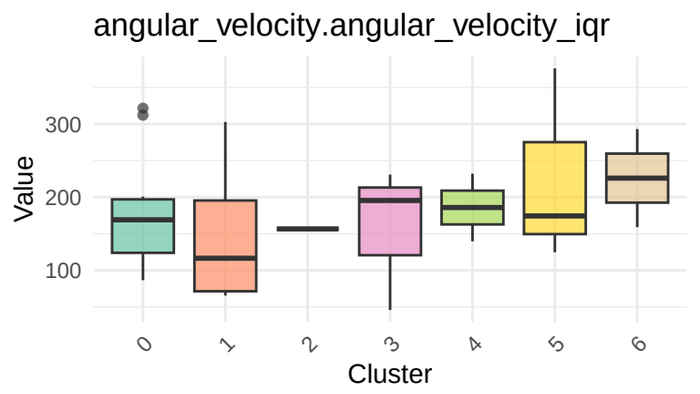
Interpretation: This bar chart shows the number of bouts assigned to each cluster. Balanced clusters (similar sizes) are generally preferred, but natural behavior patterns may result in uneven distributions. Very small clusters may represe



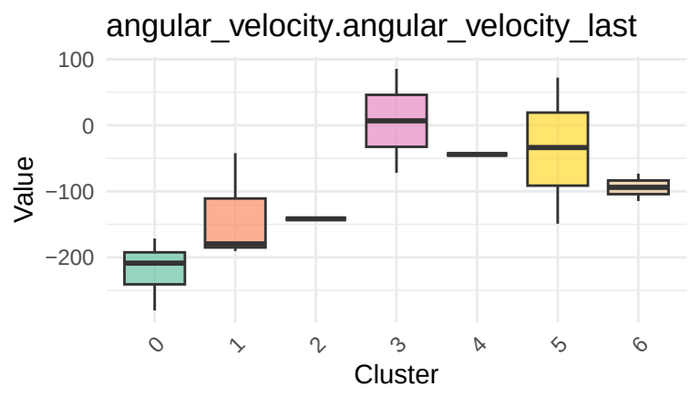
Interpretation: Boxplots show the distribution of feature values across clusters. The



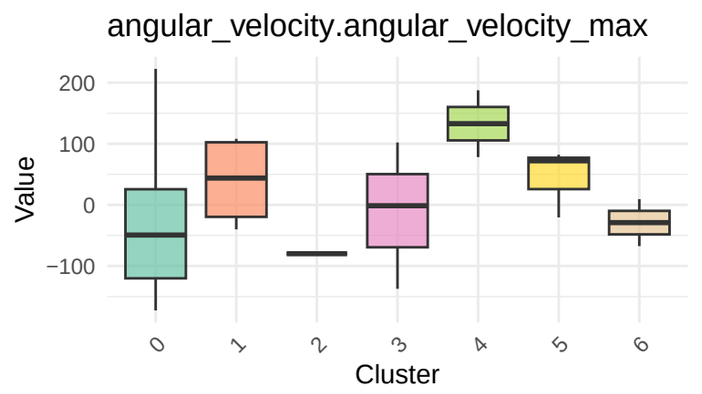
Interpretation: Boxplots show the distribution of feature values across clusters.



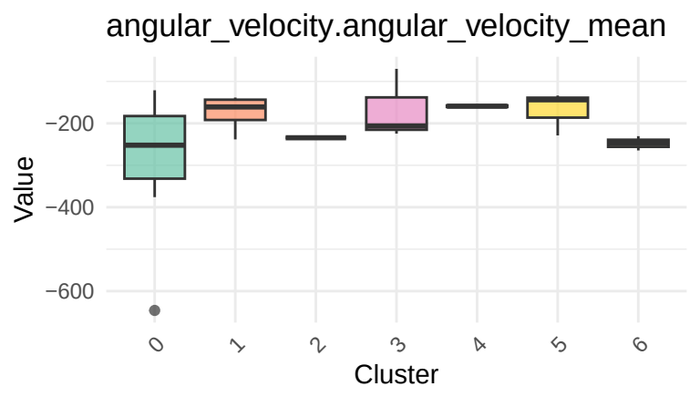
Interpretation: Boxplots show the distribution of feature values across clusters. Th



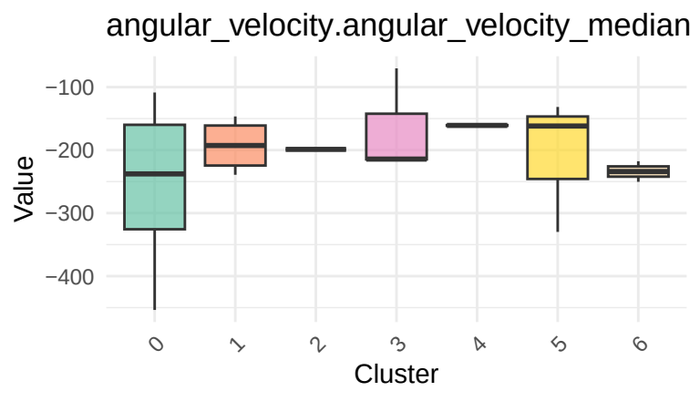
Interpretation: Boxplots show the distribution of feature values across clusters.



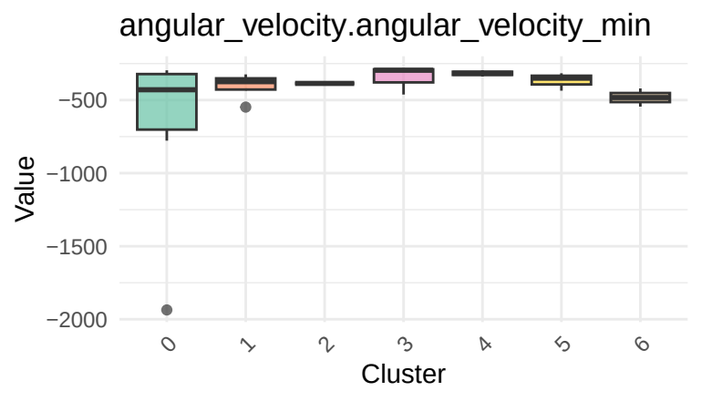
Interpretation: Boxplots show the distribution of feature values across clusters.



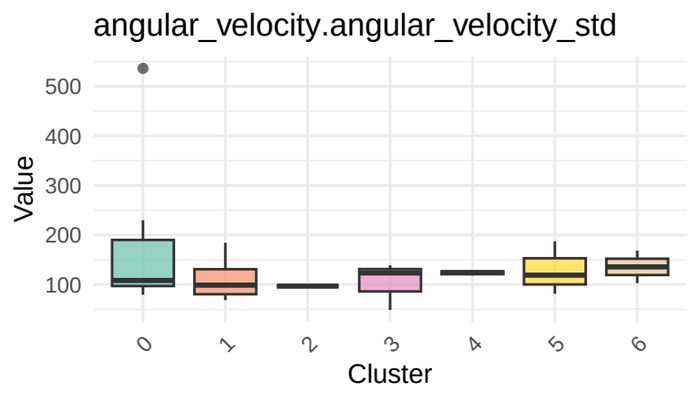
Interpretation: Boxplots show the distribution of feature values across clusters.



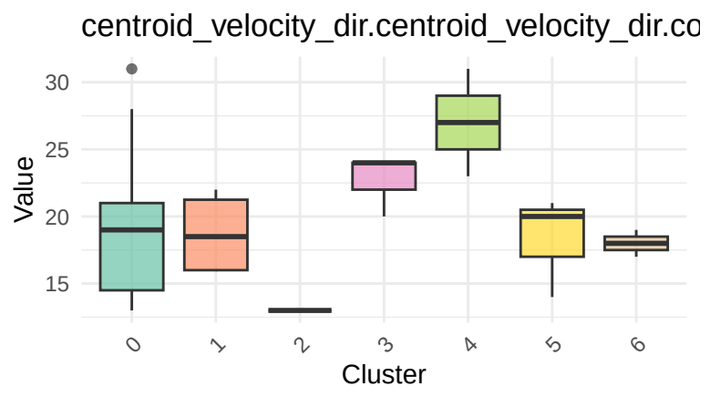
Interpretation: Boxplots show the distribution of feature values across clusters.



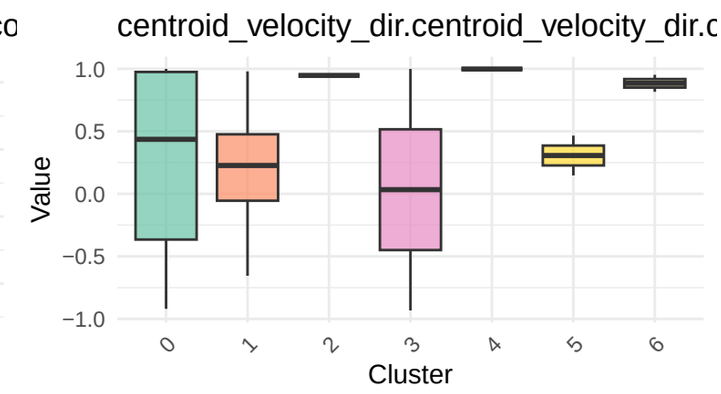
Interpretation: Boxplots show the distribution of feature values across clusters



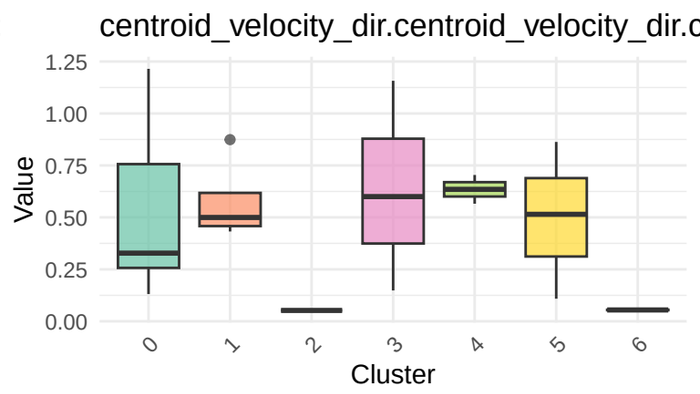
Interpretation: Boxplots show the distribution of feature values across clusters. Th



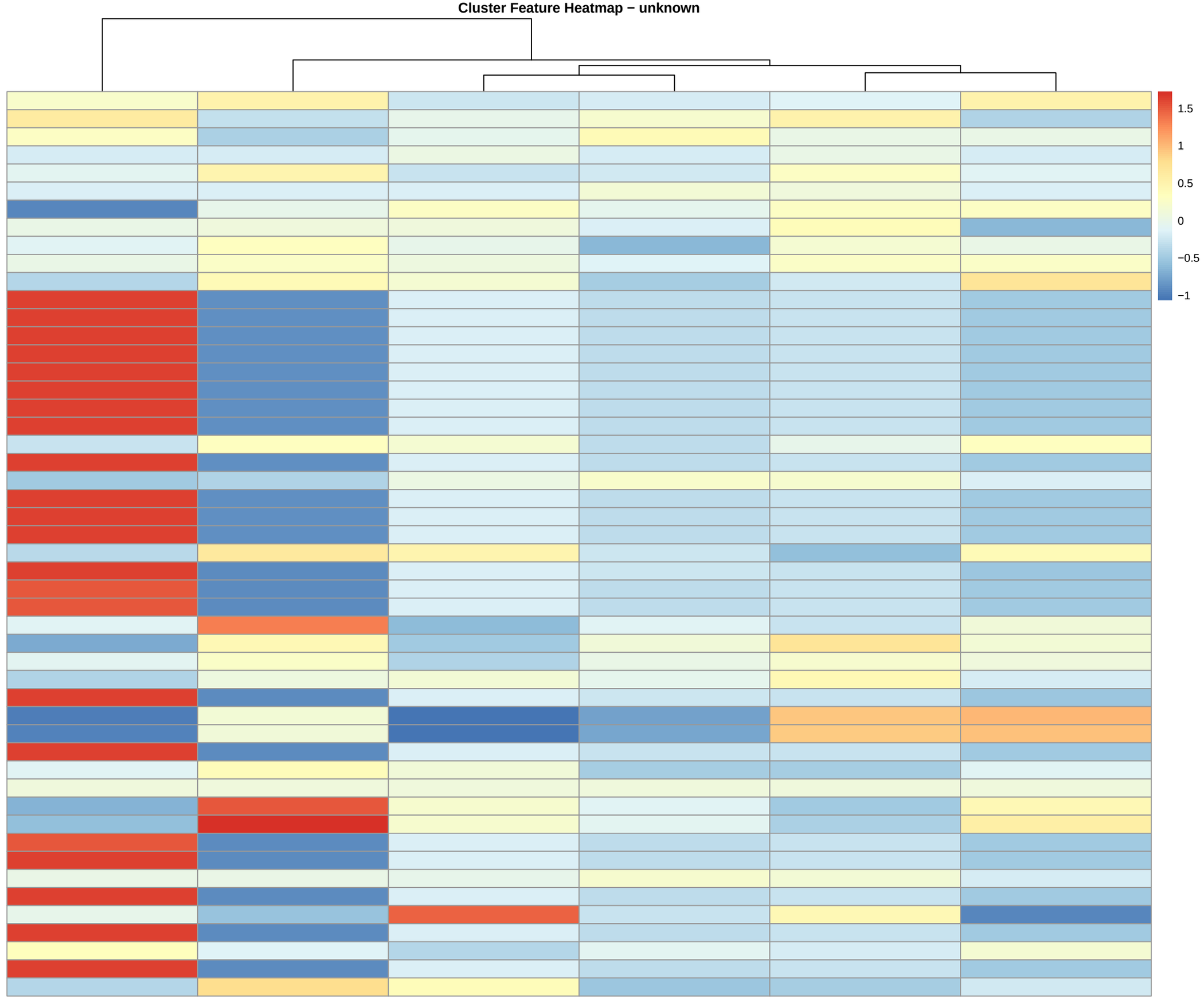
Interpretation: Boxplots show the distribution of feature values across clusters. The



Interpretation: Boxplots show the distribution of feature values across clusters. T



Interpretation: Boxplots show the distribution of feature values across clusters. T


Cluster Feature Heatmap − unknown
1.5
1
0.5
0
−0.5
−1

Clustering Method: unknown

Total Bouts: 225

Number of Clusters: 7

Cluster Sizes:

ıss the top variable features (columns). Colors represent standardized values: red = high, blue = low, white = average. Clusters with similar color patterns share similar feature pı

Cluster 0: 110 bouts

Cluster 1: 27 bouts

Cluster 2: 13 bouts

Cluster 3: 23 bouts

Cluster 4: 18 bouts

Cluster 5: 22 bouts

Cluster 6: 12 bouts