

Supplementary Materials

Supervised Dimensionality Reduction for the Algorithm Selection Problem

Danielle Notice¹, Nicos G. Pavlidis², and Ahmed Kheiri²

¹ STOR-i Centre for Doctoral Training, Lancaster University
d.a.notice@lancaster.ac.uk

² Department of Management Science, Lancaster University
{n.pavlidis,a.kheiri}@lancaster.ac.uk

Below are the 2D visualisations of all the problem instances in the different projection spaces for each of the datasets included.

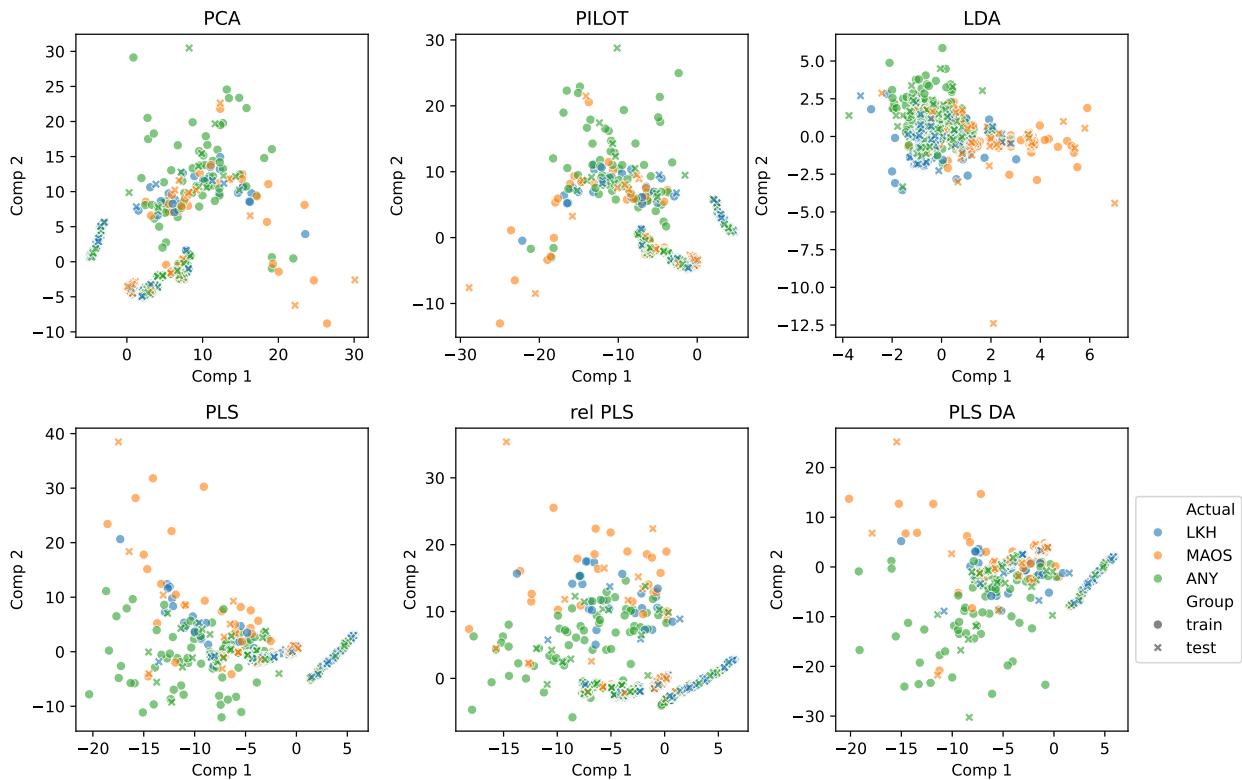


Fig. 1: 2D projections of tsp60 instance space showing actual best algorithm

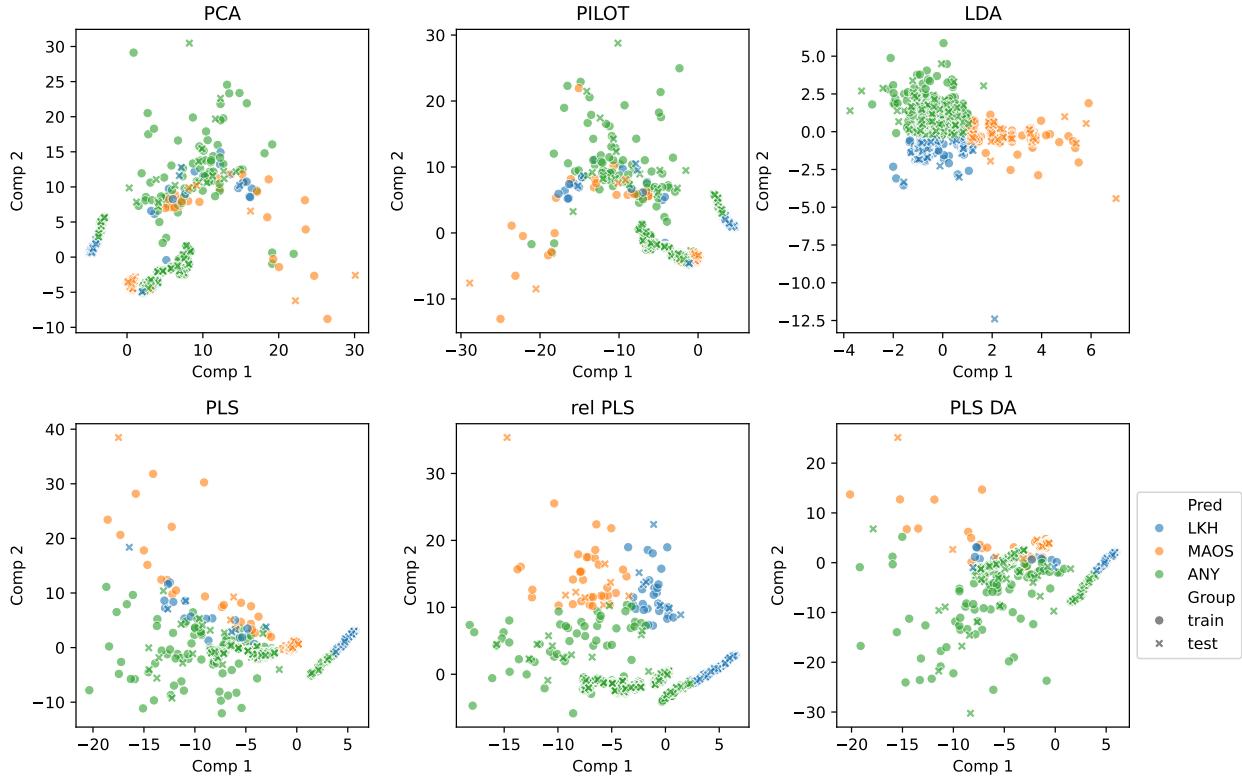


Fig. 2: 2D projections of *tsp60* instance space showing predicted best algorithm

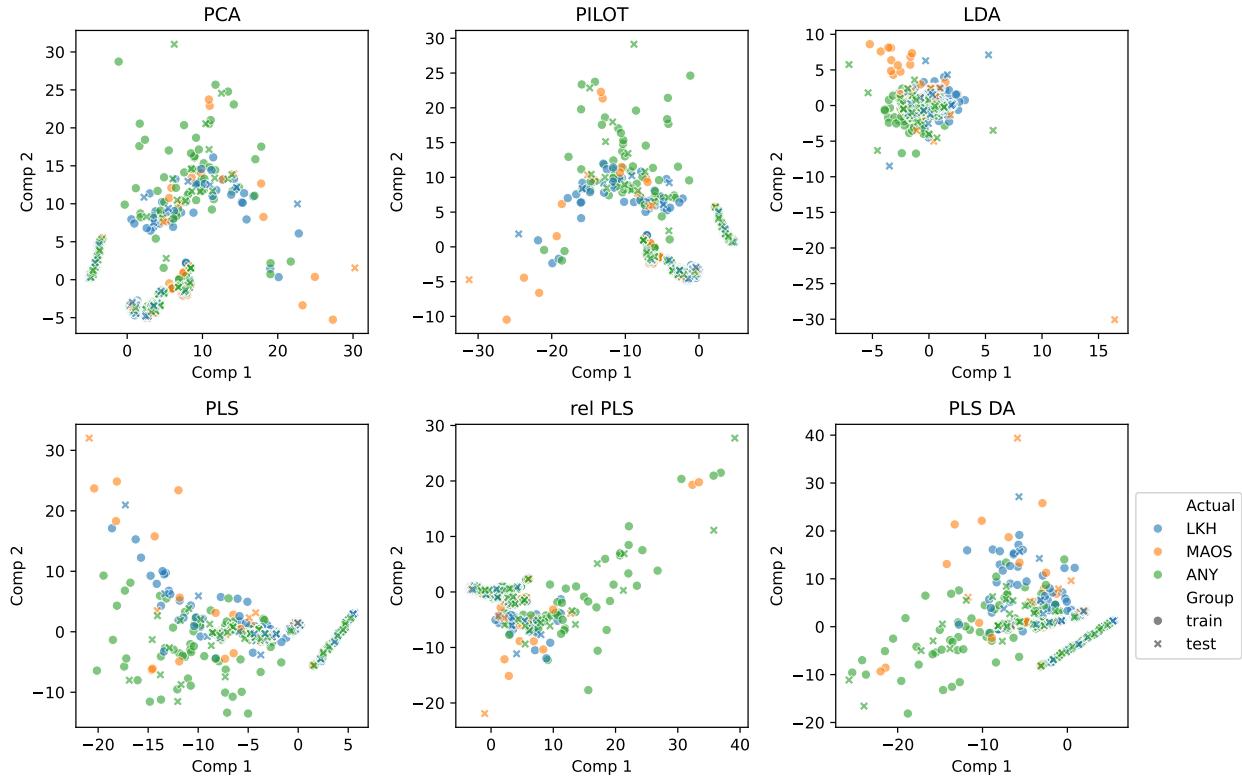


Fig. 3: 2D projections of *tsp1800* instance space showing actual best algorithm

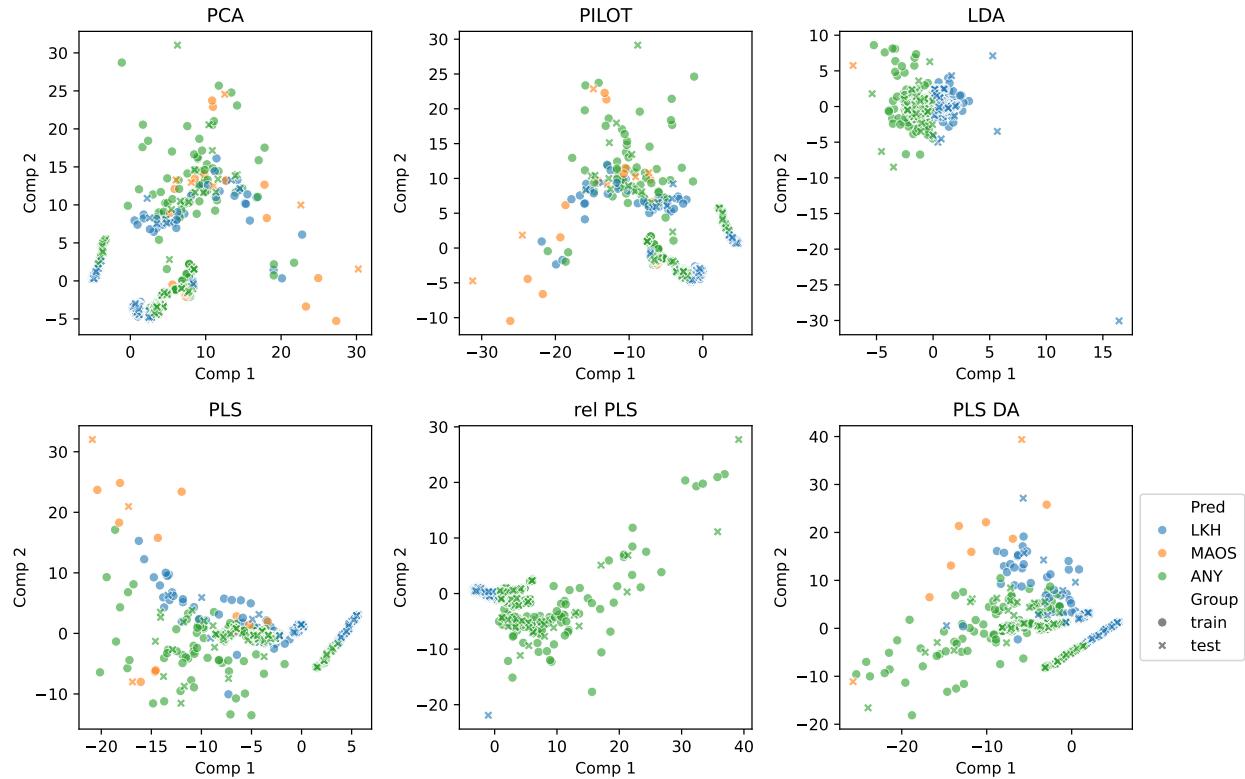


Fig. 4: 2D projections of `tsp1800` instance space showing predicted best algorithm

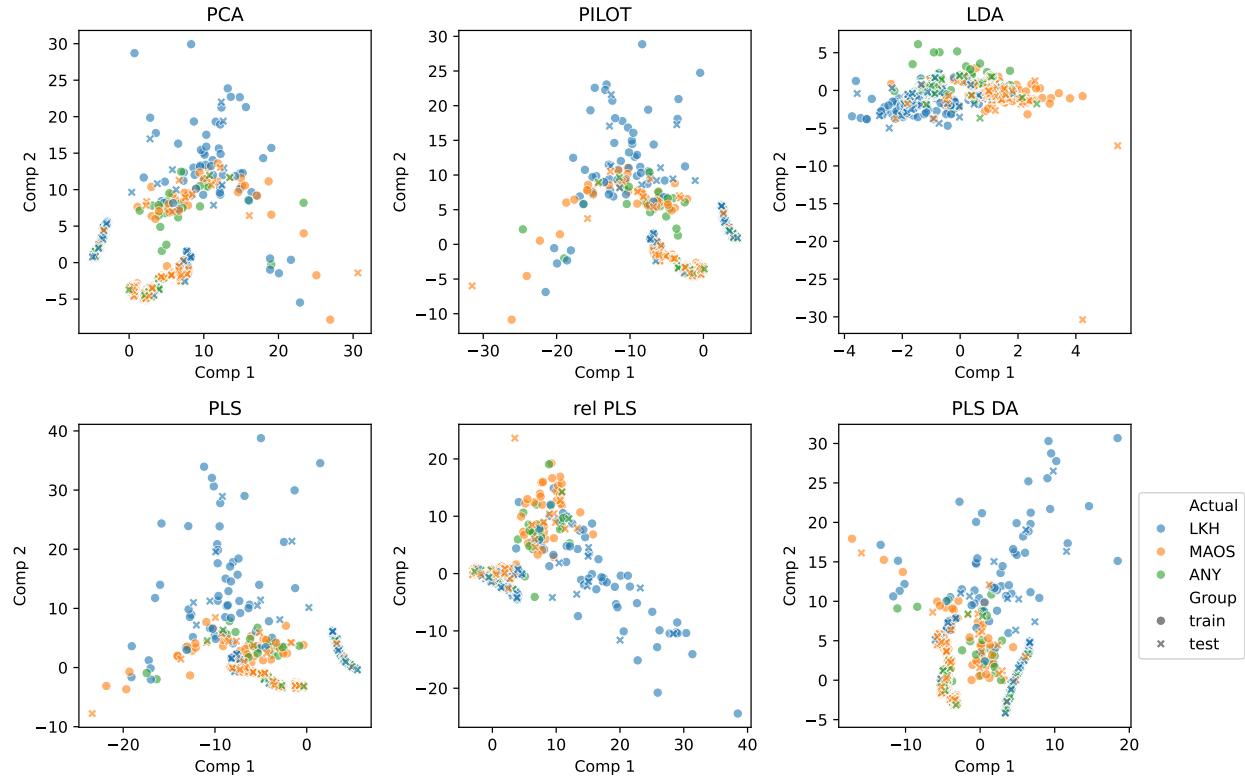


Fig. 5: 2D projections of `tspWin` instance space showing actual best algorithm

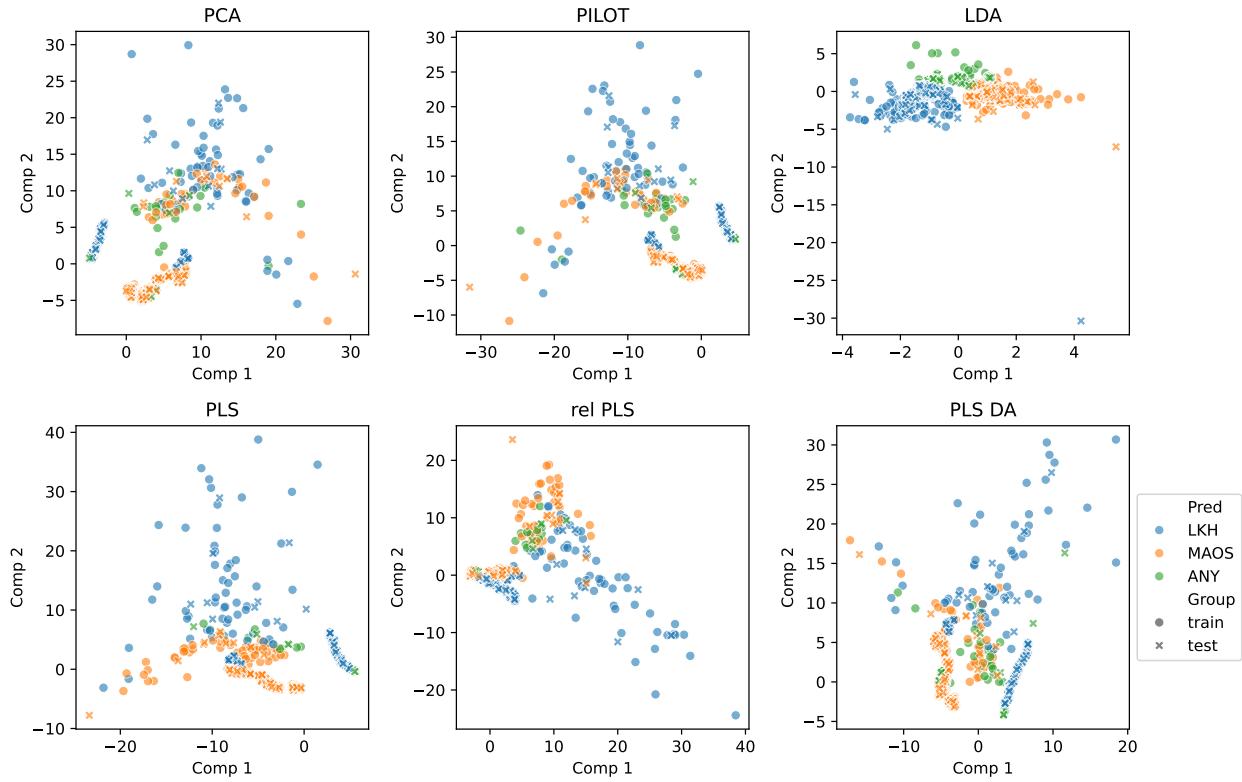


Fig. 6: 2D projections of `tspWin` instance space showing predicted best algorithm

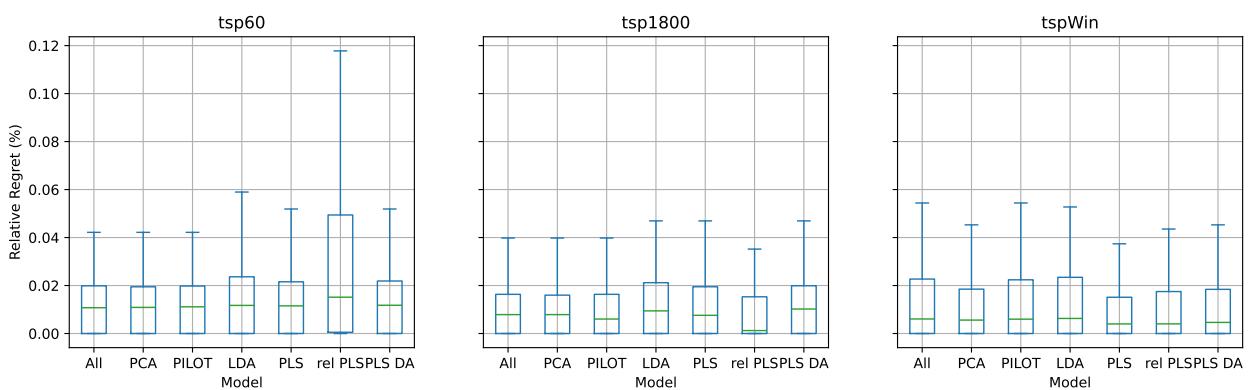


Fig. 7: Distribution of relative regret for misclassified instances from TSP datasets (excluding outliers)

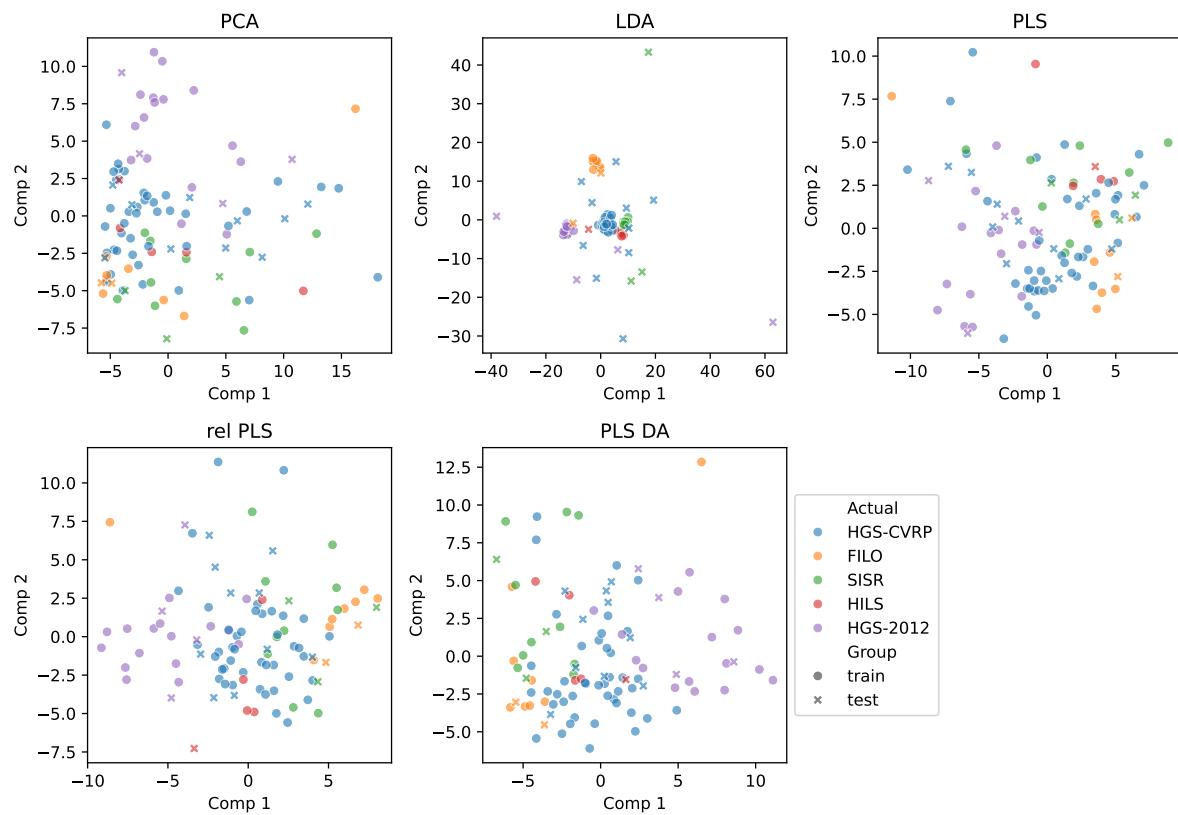


Fig. 8: 2D projections of vrp instance space showing actual best algorithm

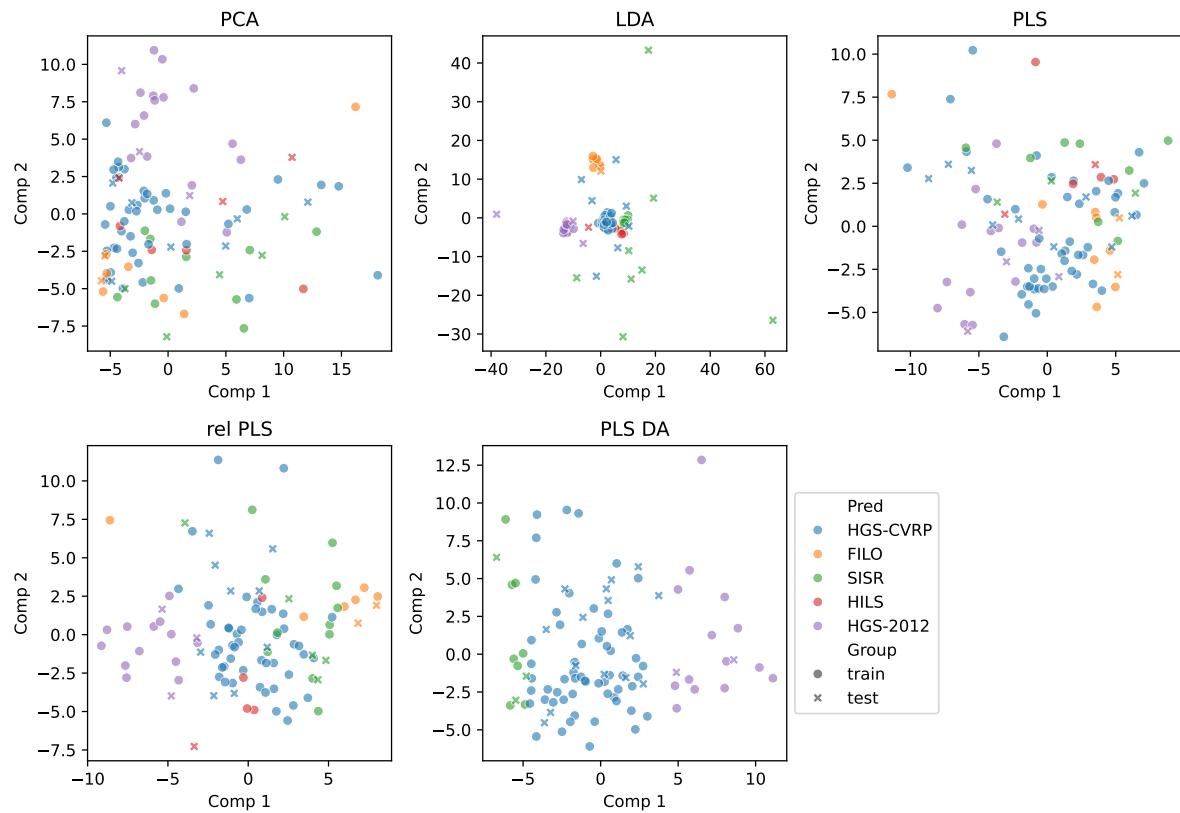


Fig. 9: 2D projections of vrp instance space showing predicted best algorithm

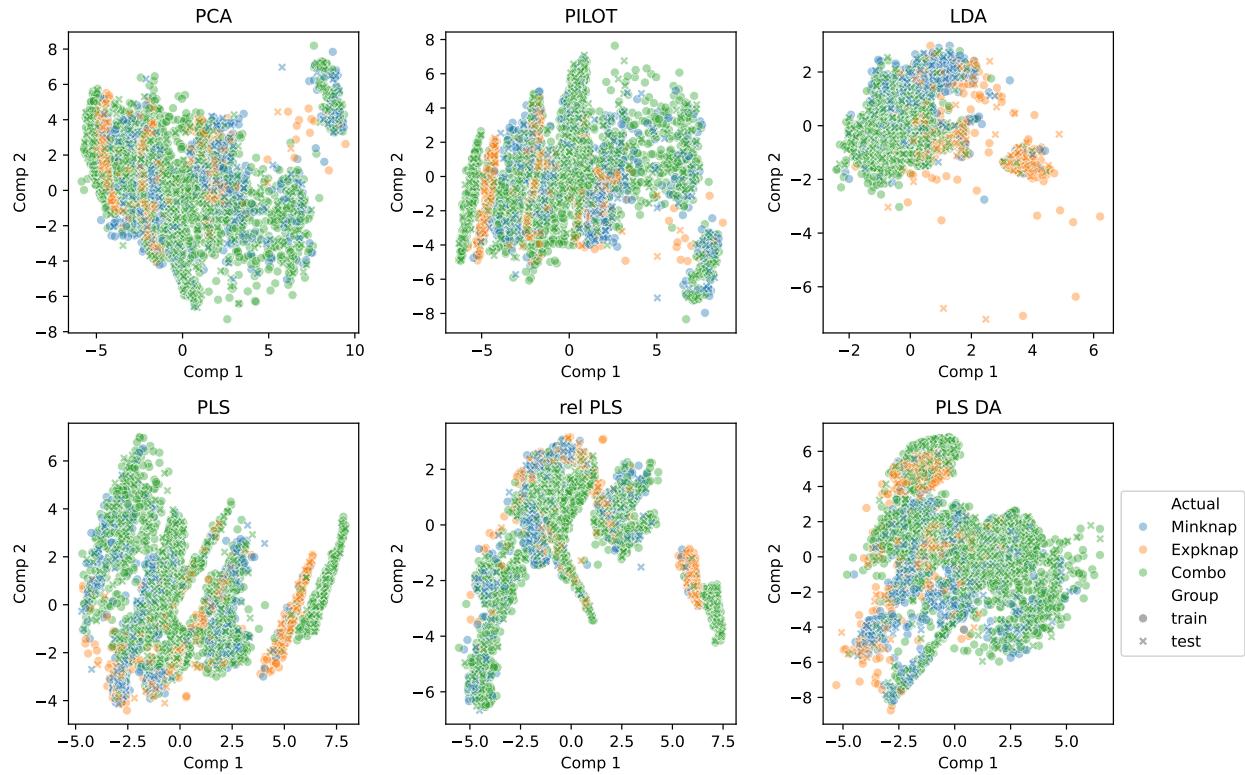


Fig. 10: 2D projections of knapsack instance space showing actual best algorithm

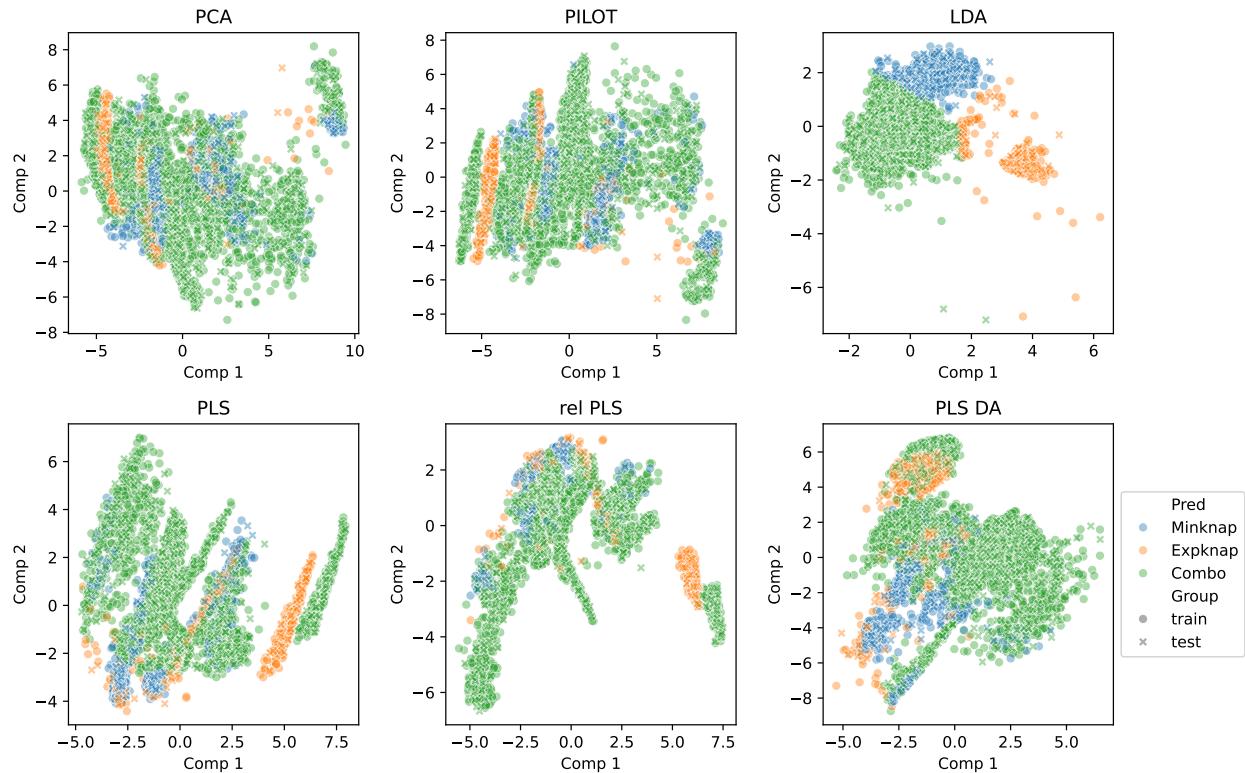


Fig. 11: 2D projections of knapsack instance space showing predicted best algorithm