

Boxplot showing the distribution of the coefficient of determination ( $R^2$ ) for various imputation methods. The y-axis represents  $R^2$  values from 0.0 to 1.0. The x-axis lists the methods: norm.predict, missForest, runifsq, cart, runif, mice-DRF, and dep\_runif. The plot indicates that mice-DRF and dep\_runif generally achieve higher  $R^2$  values compared to the other methods, while norm.predict and missForest show lower  $R^2$  values.

Boxplot showing the distribution of the number of iterations for different models. The y-axis represents the number of iterations, ranging from -1.00 to 0.00. The x-axis lists the models: runifsq, missForest, norm.predict, runif, cart, mice-DRF, norm.nob, and dep\_runif. The distributions are generally centered around -0.10, with runifsq and missForest showing more spread than the others.

A boxplot showing the difference in AUC between the best model and each other model. The y-axis represents the difference in AUC, ranging from -1.00 to 0.00. The x-axis lists the models: runifsq, runif, norm.predictmice-DRF, missForest, norm.nob, cart, and dep\_runif. The runifsq model shows a significant negative difference, while the other models show differences close to zero.

| Model                | Median Difference | Q1    | Q3    | Min   | Max   | Outliers |
|----------------------|-------------------|-------|-------|-------|-------|----------|
| runifsq              | -0.90             | -0.95 | -0.85 | -1.00 | -0.75 | None     |
| runif                | -0.20             | -0.22 | -0.18 | -0.25 | -0.15 | None     |
| norm.predictmice-DRF | -0.08             | -0.10 | -0.06 | -0.12 | -0.04 | None     |
| missForest           | -0.07             | -0.09 | -0.05 | -0.10 | -0.03 | None     |
| norm.nob             | -0.01             | -0.02 | 0.00  | -0.03 | 0.01  | None     |
| cart                 | -0.01             | -0.02 | 0.00  | -0.03 | 0.01  | None     |
| dep_runif            | -0.01             | -0.02 | 0.00  | -0.03 | 0.01  | None     |