Feature Specific Quantile Normalization - FSQN

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Example Code

For this example, we will randomly generate two data sets. The target data set has 100 samples and 150 features. The test data set (that we want to normalize) has 30 samples and the same 150 features. We will normalize using the function quantileNormalizeByFeature(matrix_to_normalize, target_matrix).

NOTE: the two matrices must have corresponding rows.

```
library(FSQN)
```

```
## Loading required package: preprocessCore
```

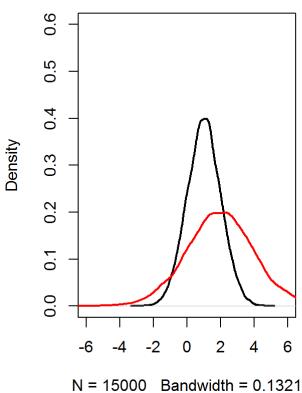
```
set.seed(7)
target <- matrix(rnorm(100*150, mean = 1, sd = 1), nrow = 100, ncol = 150)
test <- matrix(rnorm(30*150, mean = 2, sd = 2), nrow = 30, ncol = 150)
normalized_test <- quantileNormalizeByFeature(test, target)</pre>
```

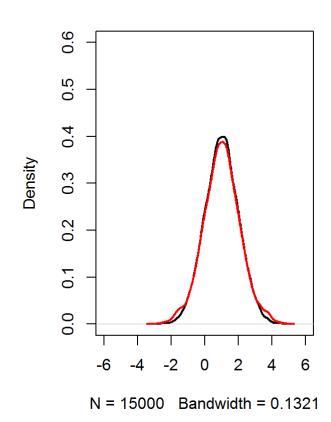
Output

Here we see that following normalization, the two data sets follow the same distribution:

Pre-normalization

Post-normalization





NOTE: coordinate_matrices(matrix1,matrix2) may be used to select only the columns in common between the two data matrices and will put them in a corresponding order. See example below:

temp = coordinateMatrices(matrix1, matrix2) ordered_matrix1 <- temp\$V1</pre> ordered_matrix2 <- temp\$V2</pre>