

SSCD Vignette on GtexResampled Data

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```
{r setup, include=FALSE} knitr::opts_chunk$set(echo = TRUE)
library(SSCD)
```

Load GtexResampled Data data

```
load("../..data/GtexResampled.RData")
```

Load the expression matrix

SSCD optimization can take a couple of hours in a multi-core environment. We demonstrate with a small subset.

```
small_mix <- Dataset_Resampled_Gtex$ex[1:100,]
```

```
compartment_n <- nrow(Dataset_Resampled_Gtex$trueH)
```

Get the number of compartments from the trueH matrix

```
compartment_n <- nrow(Dataset_Resampled_Gtex$trueH)
```

Load the expression matrix

Please choose the number of cores available for the optimization

```
improvedW <- SSCD::SSCD(small_mix, compartments_n = compartment_n,
nrun = 200, nmf_seed = 124578, mvg = 1000, parallel_n = 10)
```