

rTRMui: a shiny user interface for the identification of transcriptional regulatory modules

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November 9, 2022

1 Introduction

To install rTRMui you need to have installed rTRM and shiny. To use rTRMui load the library and then just run `runTRM()` from the R prompt:

```
> library(rTRMui)
> runTRM()
```

This will open a web browser and show the rTRMui home page (Figure 1). Instructions on how to use rTRMui are available in the *Help* tab from the rTRMui server. Example datasets can be downloaded from the home page and used with the *Tutorial*.

2 System information

```
> sessionInfo()
```

```
R version 4.2.1 (2022-06-23)
Platform: aarch64-apple-darwin20 (64-bit)
Running under: macOS Ventura 13.0
```

```
Matrix products: default
```

```
BLAS:   /Library/Frameworks/R.framework/Versions/4.2-arm64/Resources/lib/libRblas.0.dylib
LAPACK: /Library/Frameworks/R.framework/Versions/4.2-arm64/Resources/lib/libRlapack.dylib
```

```
locale:
```

```
[1] C/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
```

```
attached base packages:
```

```
[1] stats      graphics  grDevices  utils      datasets  methods    base
```



Figure 1: rTRMui home page showing the TRM indentified using the sample datasets from the tutorial.

other attached packages:

[1] rTRMui_1.36.0

loaded via a namespace (and not attached):

```
[1] Rcpp_1.0.9           lattice_0.20-45
[3] png_0.1-7            Rsamtools_2.14.0
[5] Biostrings_2.66.0    digest_0.6.29
[7] mime_0.12            org.Mm.eg.db_3.15.0
[9] R6_2.5.1             GenomeInfoDb_1.34.2
[11] stats4_4.2.1         RSQLite_2.2.14
[13] httr_1.4.3           zlibbioc_1.44.0
[15] rlang_1.0.4          data.table_1.14.2
[17] blob_1.2.3           S4Vectors_0.36.0
[19] Matrix_1.4-1         BiocParallel_1.32.1
[21] igraph_1.3.5         RCurl_1.98-1.7
[23] bit_4.0.4            shiny_1.7.1
[25] DelayedArray_0.24.0  compiler_4.2.1
[27] httpuv_1.6.5         rtracklayer_1.58.0
```

[29]	pkgconfig_2.0.3	BiocGenerics_0.44.0
[31]	htmltools_0.5.2	KEGGREST_1.38.0
[33]	SummarizedExperiment_1.28.0	rTRM_1.36.0
[35]	GenomeInfoDbData_1.2.8	IRanges_2.32.0
[37]	codetools_0.2-18	matrixStats_0.62.0
[39]	XML_3.99-0.10	crayon_1.5.1
[41]	later_1.3.0	GenomicAlignments_1.34.0
[43]	bitops_1.0-7	grid_4.2.1
[45]	xtable_1.8-4	lifecycle_1.0.1
[47]	DBI_1.1.3	magrittr_2.0.3
[49]	cli_3.3.0	cachem_1.0.6
[51]	XVector_0.38.0	promises_1.2.0.1
[53]	splitstackshape_1.4.8	ellipsis_0.3.2
[55]	vctrs_0.4.1	org.Hs.eg.db_3.15.0
[57]	rjson_0.2.21	restfulr_0.0.15
[59]	tools_4.2.1	bit64_4.0.5
[61]	Biobase_2.58.0	MotifDb_1.40.0
[63]	MatrixGenerics_1.10.0	parallel_4.2.1
[65]	fastmap_1.1.0	yaml_2.3.5
[67]	AnnotationDbi_1.60.0	GenomicRanges_1.50.1
[69]	memoise_2.0.1	BiocIO_1.8.0