

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

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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 4.5.0 RC (2025-04-03 r88103 ucrt)
Platform: x86_64-w64-mingw32/x64
Running under: Windows Server 2022 x64 (build 20348)
```

```
Matrix products: default
LAPACK version 3.12.1
```

```
locale:
[1] LC_COLLATE=C
[2] LC_CTYPE=English_United States.utf8
[3] LC_MONETARY=English_United States.utf8
[4] LC_NUMERIC=C
[5] LC_TIME=English_United States.utf8
```



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

```
time zone: America/New_York
tzcode source: internal
```

```
attached base packages:
```

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

```
other attached packages:
```

```
[1] rTRMui_1.47.0
```

```
loaded via a namespace (and not attached):
```

```
[1] KEGGREST_1.49.0      SummarizedExperiment_1.39.0
[3] rjson_0.2.23         lattice_0.22-7
[5] Biobase_2.69.0       vctrs_0.6.5
[7] tools_4.5.0          bitops_1.0-9
[9] generics_0.1.3       stats4_4.5.0
[11] curl_6.2.2           parallel_4.5.0
[13] AnnotationDbi_1.71.0 RSQLite_2.3.9
[15] MotifDb_1.51.0       blob_1.2.4
```

[17] pkgconfig_2.0.3	Matrix_1.7-3
[19] data.table_1.17.0	S4Vectors_0.47.0
[21] lifecycle_1.0.4	GenomeInfoDbData_1.2.14
[23] rTRM_1.47.0	compiler_4.5.0
[25] Rsamtools_2.25.0	Biostrings_2.77.0
[27] codetools_0.2-20	httpuv_1.6.15
[29] GenomeInfoDb_1.45.0	htmltools_0.5.8.1
[31] RCurl_1.98-1.17	yaml_2.3.10
[33] later_1.4.2	crayon_1.5.3
[35] BiocParallel_1.43.0	DelayedArray_0.35.0
[37] cachem_1.1.0	org.Hs.eg.db_3.21.0
[39] abind_1.4-8	mime_0.13
[41] digest_0.6.37	restfulr_0.0.15
[43] grid_4.5.0	fastmap_1.2.0
[45] SparseArray_1.9.0	cli_3.6.4
[47] magrittr_2.0.3	S4Arrays_1.9.0
[49] XML_3.99-0.18	UCSC.utils_1.5.0
[51] promises_1.3.2	bit64_4.6.0-1
[53] org.Mm.eg.db_3.21.0	XVector_0.49.0
[55] httr_1.4.7	matrixStats_1.5.0
[57] igraph_2.1.4	bit_4.6.0
[59] png_0.1-8	memoise_2.0.1
[61] shiny_1.10.0	GenomicRanges_1.61.0
[63] IRanges_2.43.0	BiocIO_1.19.0
[65] rtracklayer_1.69.0	rlang_1.1.6
[67] Rcpp_1.0.14	xtable_1.8-4
[69] DBI_1.2.3	BiocGenerics_0.55.0
[71] splitstackshape_1.4.8	jsonlite_2.0.0
[73] R6_2.6.1	MatrixGenerics_1.21.0
[75] GenomicAlignments_1.45.0	