

# Package: MRMiSTERI (via r-universe)

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**Type** Package

**Title** Mixed-Scale Treatment Effect Robust Identification (MR MiSTERI) and Estimation

**Version** 0.1.0

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**Description** This package performs robust Mendelian randomization to estimate the effect of treatment on the treated with possibly invalid IVs.

**License** MIT

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.1.1

**Imports** alabama

**Repository** <https://mrcieu.r-universe.dev>

**RemoteUrl** <https://github.com/remlapmot/MRMiSTERI>

**RemoteRef** suggestions

**RemoteSha** 83bcbe0792ee283a6f8a33fe6a4b85878ebe80ea

**RemoteSubdir** MRMiSTERI

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|--------------|---|
| misterigauss | <i>MR MiSTERI for a continous outcome with Gaussian errors.</i> |
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**Description**

This function estimates the causal effect of treatment on the treated (ETT) for a continous outcome with Gaussian error terms.

**Usage**

```
misterigauss(Z = Z, A = A, Y = Y)
```

**Arguments**

|   |                                 |
|---|---------------------------------|
| Z | an IV scalar variable           |
| A | the exposure variable           |
| Y | the continuous outcome variable |

**Value**

a list object that contains causal effect estimates and standard errors.

**References**

<https://www.medrxiv.org/content/10.1101/2020.09.29.20204420v3>

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|                 |   |
|-----------------|---|
| misterigaussmix | <i>MR MiSTERI for a continous outcome with Gaussian mixture errors.</i> |
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**Description**

This function estimates the causal effect of treatment on the treated (ETT) for a continous outcome with error terms that follow Gaussian mixture distributions.

**Usage**

```
misterigaussmix(Z, A, Y, maxiter = 100, tol = 0.001)
```

**Arguments**

|   |                                 |
|---|---------------------------------|
| Z | an IV scalar variable           |
| A | the exposure variable           |
| Y | the continuous outcome variable |

**Value**

a list object that contains causal effect estimates and standard errors.

**References**

<https://www.medrxiv.org/content/10.1101/2020.09.29.20204420v3> #' @import alabama

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misterimawii

*MR MiSTERI with many weak invalid IVs*

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**Description**

misterimawii combines many weak invalid IVs to reduce weak IV bias.

**Usage**

```
misterimawii(Z, A, Y)
```

**Arguments**

|   |  |
|---|--|
| Z | an IV matrix with columns representing IVs |
| A | the exposure variable                      |
| Y | the continuous outcome variable            |

**Value**

a list object that contains causal effect estimates and standard errors.

**References**

<https://www.medrxiv.org/content/10.1101/2020.09.29.20204420v3>

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