Package 'smriti'

May 21, 2026

Title Automated Routing Engine for Longitudinal Missing Data

Version 0.1.0

Description An automated routing engine for longitudinal missing data. It utilizes a Lagrange-constrained Random Forest based on sample size, missingness rate, and skew to preserve structural variance.

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SystemRequirements C++17

Encoding UTF-8

VignetteBuilder knitr

Imports Rcpp (>= 1.0.0), missForest, MASS

Suggests lavaan, ggplot2, tidyr, dplyr, knitr, rmarkdown

LinkingTo Rcpp, RcppArmadillo

Config/roxygen2/version 8.0.0

NeedsCompilation yes

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Repository CRAN

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smriti_impute *Smriti Automated Longitudinal Imputation*

Description

This function performs an automated routing and refinement for longitudinal missing data. It establishes a target covariance manifold from observed data, performs initial machine learning imputation, and then projects the result back toward the structural manifold using a Lagrangian constraint.

Usage

```
smriti_impute(data, time_cols, lambda = 0.5, robust = TRUE)
```

Arguments

data	A data frame containing missing values.
time_cols	A character vector or numeric vector specifying the longitudinal columns.
lambda	A numeric value specifying the penalty weight for the Lagrangian constraint.
robust	A logical value. Setting it to TRUE sacrifices a marginal degree of asymptotic efficiency on perfect Gaussian data to secure structural integrity against heavy-tailed skew (the robustness-efficiency tradeoff).

Value

A data frame with imputed and structurally refined values.

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