R Code Documentation

Function

`log_GFF_routine`

Description

Computes the generalized fiducial factor (GFF) tailored to forensic identification of source problems. See the reference for further details.

Usage

`log_GFF_routine`(Y_u, Y_s, Y_a, WID, steps, burnin, n_post)

Arguments

Y_u:	An $m_u \times p$ matrix of glass fragment element concentration measurements, associated with the unknown source.
Y_s:	An $m \times p$ matrix of glass fragment element concentration measurements, associated with the specific source.
Y_a:	An $N \times p$ matrix of glass fragment element concentration measurements, associated with the alternative sources.
WID:	An array of window identification numbers to identify each measurement (row) in Y_a with the associated alternative source.
steps:	The number of iterations to run the MCMC algorithm.
burnin:	The number of initial iterations to discard from the MCMC algorithm.
n_post:	The desired number of posterior samples to return from the end of the MCMC. Cannot exceed steps − burnin.

Values

GFF:	The computed GFF value.
s_out:	n_post posterior samples of the specific source model parameters.
a_out:	n_post posterior samples of the alternative source model parameters.

References

J P Williams, D M Ommen, and J Hannig (2020+). Generalized fiducial factor: an alternative to the Bayes factor for forensic identification of source problems. *In review.*