

SUPPLEMENTAL MATERIAL FOR

GLOBAL PERSISTENCE OF INTRAPLATE HEAT-FLOW ANOMALIES REVEALS LIMITS OF TECTONIC DISTANCE CONTROL

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Supplementary Results

This supplement now contains only the residual exploratory result that remains outside the main manuscript after editorial reorganization. The main text now incorporates the principal robustness and distributional extensions that were previously separated into Supplementary Results, so the purpose of the present file is narrower: it documents the clustering-concordance diagnostic without carrying the main explanatory burden of the paper.

The clustering comparison should be interpreted as exploratory support rather than as an alternative basis for inference. Its role is to test whether the intraplate dataset resolves naturally into a small number of strongly stable subgroups across different unsupervised methods.

The result retained here is therefore best read as a structural diagnostic of internal organization rather than as independent evidence redefining the central conclusions of the study.

Residual and clustering diagnostics indicate that the intraplate dataset contains detectable internal organization, but not one that resolves into robust, uniquely stable, and method-independent discrete classes. Agreement across K-means, Ward hierarchical clustering, and DBSCAN remains partial, and the geographic projection of agreement classes does not reveal a simple partition of the intraplate domain into sharply bounded geodynamic subgroups (Supplementary Fig. SR1).

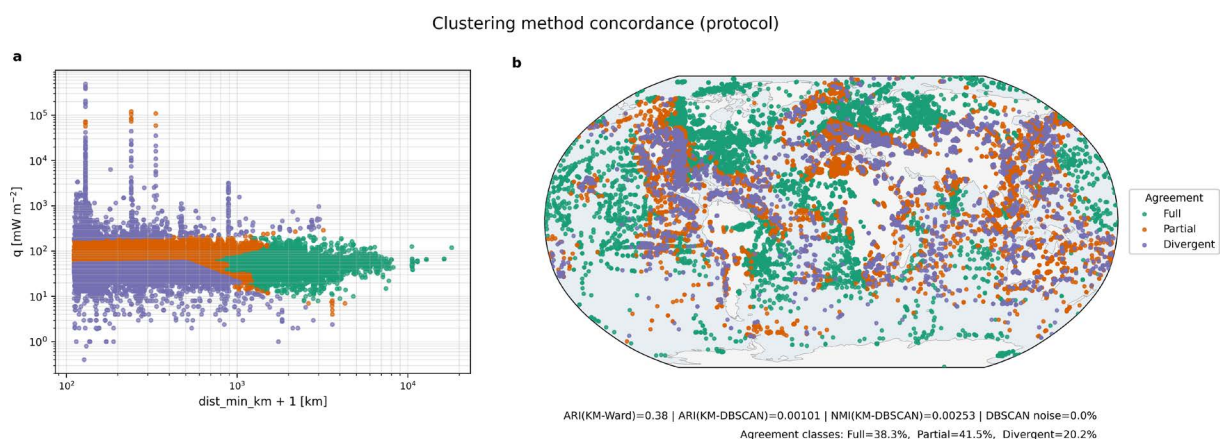


Figure SR1. Concordance between clustering methods in the intraplate domain. Panel (a) shows pointwise clustering agreement in feature space, using $\log_{10}(q)$ and $\log_{10}(\text{dist_min_km} + 1)$, after optimal alignment of Ward hierarchical and DBSCAN labels to the K-means label space. Panel (b) shows the corresponding global geographic distribution of the same agreement classes. The reported agreement metrics indicate detectable internal structure, but not a uniquely stable partition of the intraplate domain across methods. This result supports a continuous interpretation of intraplate thermal variability rather than a simple subdivision into a few sharply separated clusters.