

S1 Data. Availability of data, code and material. The data sets that support the findings of this study are freely available from [49–52]. The code generated and analysed in this work is available in the “Adaptive-Dimensionality-Adjustment” repository, [“https://github.com/NicoMigenda/Adaptive-Dimensionality-Adjustment”](https://github.com/NicoMigenda/Adaptive-Dimensionality-Adjustment). In the same repository, a MATLAB implementation of the incremental PCA [8] that is used for the benchmark can be found.