Supplementary materials for Hybrid Spectral/Subspace Clustering of Molecular Dynamics Data

All materials bellow will refer to https://github.com/fio2003/PYSSC/segmented_analysis.ods file with analysis.

1 PROTEIN TYPE

1.1 Affinities

1.1.1 *Width.*

EN For knn, NFP showed 65% [AC23] of narrow shapes, 19% [AE23] of wide shapes, and 22% [AF23] of changes. IDP showed 44% [AG23] of narrow shapes, 35% [AI23] of wide shapes, and 56% [AJ23] of changes.

For pp, NFP showed 70% [AC24] of narrow shapes, 6% [AE24] of wide shapes, and 44% [AF24] of changes. IDP showed 65% [AG24] of narrow shapes, 9% [AI24] of wide shapes, and 67% [AJ24] of changes.

PL For knn, NFP showed 36% [AC25] of narrow shapes, 47% [AE25] of wide shapes, and 50% [AF25] of changes. IDP showed 22% [AG25] of narrow shapes, 67% [AI25] of wide shapes, and 83% [AJ25] of changes.

For sigma, NFP showed 14% [AC26] of narrow shapes, 67% [AE26] of wide shapes, and 8% [AF26] of changes. IDP showed 0% [AG26] of narrow shapes, 89% [AI26] of wide shapes, and 25% [AJ26] of changes.

Total For knn, NFP showed 53% [AC27] of narrow shapes, 30% [AE27] of wide shapes, and 33% [AF27] of changes. IDP showed 36% [AG27] of narrow shapes, 48% [AI27] of wide shapes, and 67% [AJ27] of changes.

For pp/sigma, NFP showed 48% [AC28] of narrow shapes, 30% [AE28] of wide shapes, and 30% [AF28] of changes. IDP showed 39% [AG28] of narrow shapes, 41% [AI28] of wide shapes, and 50% [AJ28] of changes.

1.1.2 *Shape.*

EN For knn, NFP showed 13% [AC163] of rising parts, 6% [AE163] of falling parts, 6% [AG163]of them were strong, and 17% [AF163] of V and A shapes. IDP showed 17% [AC163] of rising parts, 11% [AE163] of falling parts, 17% [AG163]of them were strong, and 28% [AF163] of V and A shapes.

For pp, NFP showed 9% [AC164] of rising parts, 11% [AE164] of falling parts, 0% [AG164]of them were strong, and 22% [AF164] of V and A shapes. IDP showed 13% [AC164] of rising parts, 26% [AE164] of falling parts, 17% [AG164]of them were strong, and 22% [AF164] of V and A shapes.

PL For knn, NFP showed 31% [AC163] of rising parts, 17% [AE163] of falling parts, 58% [AG163]of them were strong, and 50% [AF163] of V and A shapes. IDP showed 33% [AC163] of rising parts, 25% [AE163] of falling parts, 50% [AG163]of them were strong, and 83% [AF163] of V and A shapes.

For sigma, NFP showed 0% [AC164] of rising parts, 6% [AE164] of falling parts, 8% [AG164]of them were strong, and 0%

[AF164] of V and A shapes. IDP showed 0% [AC164] of rising parts, 11% [AE164] of falling parts, 33% [AG164]of them were strong, and 33% [AF164] of V and A shapes.

Total For knn, NFP showed 31% [AC163] of rising parts, 17% [AE163] of falling parts, 58% [AG163]of them were strong, and 50% [AF163] of V and A shapes. IDP showed 33% [AC163] of rising parts, 25% [AE163] of falling parts, 50% [AG163]of them were strong, and 83% [AF163] of V and A shapes.

For pp/sigma, NFP showed 0% [AC164] of rising parts, 6% [AE164] of falling parts, 8% [AG164]of them were strong, and 0% [AF164] of V and A shapes. IDP showed 0% [AC164] of rising parts, 11% [AE164] of falling parts, 33% [AG164]of them were strong, and 33% [AF164] of V and A shapes.

1.2 Algorithms

1.2.1 *Width.*

SC For knn, NFP showed 27% [AK87] of narrow shapes, 47% [AM87] of wide shapes, and 30% [AF91] of changes. IDP showed 20% [AK93] of narrow shapes, 57% [AM93] of wide shapes, and 90% [AN93] of changes.

For pp/sigma, NFP showed 60% [AK88] of narrow shapes, 30% [AM88] of wide shapes, and 20% [AN88] of changes. IDP showed 43% [AK94] of narrow shapes, 27% [AM94] of wide shapes, and 70% [AN94] of changes.

SDS For knn, NFP showed 60% [AK89] of narrow shapes, 20% [AK89] of wide shapes, and 30% [AN89] of changes. IDP showed 43% [AC95] of narrow shapes, 47% [AM95] of wide shapes, and 40% [AN95] of changes.

For pp/sigma, NFP showed 40% [AK90] of narrow shapes, 20% [AM90] of wide shapes, and 40% [AN90] of changes. IDP showed 40% [AK96] of narrow shapes, 47% [AM96] of wide shapes, and 50% [AN96] of changes.

SES For knn, NFP showed 73% [AK91] of narrow shapes, 23% [AM91] of wide shapes, and 40% [AN91] of changes. IDP showed 43% [AK97] of narrow shapes, 40% [AM97] of wide shapes, and 70% [AN97] of changes.

For pp/sigma, NFP showed 43% [AK92] of narrow shapes, 40% [AM92] of wide shapes, and 30% [AN92] of changes. IDP showed 33% [AK98] of narrow shapes, 50% [AM98] of wide shapes, and 30% [AN98] of changes.

Total For knn, NFP showed 53% [AK105] of narrow shapes, 30% [AM105] of wide shapes, and 33% [AN105] of changes. IDP showed 36% [AK107] of narrow shapes, 48% [AM107] of wide shapes, and 67% [AN107] of changes.

For pp/sigma, NFP showed 48% [AK106] of narrow shapes, 30% [AM106] of wide shapes, and 30% [AN106] of changes. IDP showed 39% [AK108] of narrow shapes, 41% [AM108] of wide shapes, and 50% [AN108] of changes.

1.2.2 *Shape.*

SC For knn, NFP showed 10% [AC241] of rising parts, 3% [AE241] of falling parts, 20% [AG241]of them were strong, and 30% [AF241] of V and A shapes. IDP showed 7% [AC243] of rising parts, 13% [AE243] of falling parts, 0% [AG243]of them were strong, and 50% [AF243] of V and A shapes.

For pp/sigma, NFP showed 7% [AC242] of rising parts, 7% [AE242] of falling parts, 0% [AG242]of them were strong, and 10% [AF242] of V and A shapes. IDP showed 7% [AC244] of rising parts, 27% [AE244] of falling parts, 20% [AG244]of them were strong, and 50% [AF244] of V and A shapes.

SDS For knn, NFP showed 7% [AH241] of rising parts, 20% [AJ241] of falling parts, 20% [AL241]of them were strong, and 40% [AK241] of V and A shapes. IDP showed 7% [AH243] of rising parts, 30% [AJ243] of falling parts, 40% [AL243]of them were strong, and 60% [AK243] of V and A shapes.

For pp/sigma, NFP showed 3% [AH242] of rising parts, 10% [AJ242] of falling parts, 10% [AL242]of them were strong, and 10% [AK242] of V and A shapes. IDP showed 7% [AH244] of rising parts, 20% [AJ244] of falling parts, 40% [AL244]of them were strong, and 30% [AK244] of V and A shapes.

SES For knn, NFP showed 43% [AM241] of rising parts, 7% [AO241] of falling parts, 40% [AQ241]of them were strong, and 20% [AP241] of V and A shapes. IDP showed 57% [AM243] of rising parts, 7% [AO243] of falling parts, 50% [AQ243]of them were strong, and 40% [AP243] of V and A shapes.

For pp/sigma, NFP showed 7% [AM242] of rising parts, 10% [AO242] of falling parts, 0% [AQ242]of them were strong, and 20% [AP242] of V and A shapes. IDP showed 10% [AM244] of rising parts, 13% [AO244] of falling parts, 10% [AQ244]of them were strong, and 0% [AP244] of V and A shapes.

Total For knn, NFP showed 20% [AR241] of rising parts, 10% [AT241] of falling parts, 27% [AV241]of them were strong, and 30% [AU241] of V and A shapes. IDP showed 57% [AR243] of rising parts, 7% [AT243] of falling parts, 50% [AV243]of them were strong, and 40% [AU243] of V and A shapes.

For pp/sigma, NFP showed 6% [AR242] of rising parts, 9% [AT242] of falling parts, 3% [AV242]of them were strong, and 13% [AU242] of V and A shapes. IDP showed 8% [AR244] of rising parts, 20% [AT244] of falling parts, 23% [AV244]of them were strong, and 27% [AU244] of V and A shapes.

1.3 Sparsity

1.3.1 Width.

DN For knn, NFP showed 33% [AO59] of narrow shapes, 39% [AQ59] of wide shapes, and 50% [AR59] of changes. IDP showed 33% [AO65] of narrow shapes, 44% [AQ65] of wide shapes, and 83% [AR65] of changes.

For pp, NFP showed 56% [AO60] of narrow shapes, 17% [AQ60] of wide shapes, and 50% [AR60] of changes. IDP showed 50% [AO66] of narrow shapes, 22% [AQ66] of wide shapes, and 83% [AR66] of changes.

SP For knn, NFP showed 53% [AO61] of narrow shapes, 36% [AQ61] of wide shapes, and 33% [AR61] of changes. IDP showed 33% [AO67] of narrow shapes, 50% [AQ67] of wide shapes, and 50% [AR67] of changes.

For pp/sigma, NFP showed 50% [AO62] of narrow shapes,

25% [AQ62] of wide shapes, and 33% [AR62] of changes. IDP showed 36% [AO68] of narrow shapes, 39% [AQ68] of wide shapes, and 42% [AR68] of changes.

SS For knn, NFP showed 64% [AO63] of narrow shapes, 19% [AQ63] of wide shapes, and 25% [AR63] of changes. IDP showed 39% [AO69] of narrow shapes, 47% [AQ69] of wide shapes, and 75% [AR69] of changes.

For pp/sigma, NFP showed 42% [AO64] of narrow shapes, 42% [AQ64] of wide shapes, and 17% [AR64] of changes. IDP showed 36% [AO70] of narrow shapes, 53% [AQ70] of wide shapes, and 42% [AR70] of changes.

Total For knn, NFP showed 53% [AO77] of narrow shapes, 30% [AQ77] of wide shapes, and 33% [AR77] of changes. IDP showed 36% [AO79] of narrow shapes, 48% [AQ79] of wide shapes, and 67% [AR79] of changes.

For pp/sigma, NFP showed 48% [AO78] of narrow shapes, 30% [AQ78] of wide shapes, and 30% [AR78] of changes. IDP showed 39% [AO80] of narrow shapes, 41% [AQ80] of wide shapes, and 50% [AR80] of changes.

1.3.2 Shape.

DN For knn, NFP showed 28% [AR223] of rising parts, 17% [AT223] of falling parts, 17% [AV223]of them were strong, and 50% [AU223] of V and A shapes. IDP showed 22% [AR229] of rising parts, 11% [AT229] of falling parts, 33% [AV229]of them were strong, and 50% [AU229] of V and A shapes.

For pp, NFP showed 11% [AR224] of rising parts, 17% [AT224] of falling parts, 0% [AV224]of them were strong, and 17% [AU224] of V and A shapes. IDP showed 11% [AR230] of rising parts, 50% [AT230] of falling parts, 33% [AV230]of them were strong, and 17% [AU230] of V and A shapes.

SP For knn, NFP showed 17% [AR225] of rising parts, 8% [AT225] of falling parts, 17% [AV225]of them were strong, and 25% [AU225] of V and A shapes. IDP showed 22% [AR231] of rising parts, 19% [AT231] of falling parts, 17% [AV231]of them were strong, and 58% [AU231] of V and A shapes.

For pp/sigma, NFP showed 6% [AR226] of rising parts, 11% [AT226] of falling parts, 17% [AV226]of them were strong, and 17% [AU226] of V and A shapes. IDP showed 3% [AR232] of rising parts, 14% [AT232] of falling parts, 25% [AV232]of them were strong, and 25% [AU232] of V and A shapes.

SS For knn, NFP showed 19% [AR227] of rising parts, 8% [AT227] of falling parts, 42% [AV227]of them were strong, and 25% [AU227] of V and A shapes. IDP showed 25% [AR233] of rising parts, 17% [AT233] of falling parts, 42% [AV233]of them were strong, and 42% [AU233] of V and A shapes.

For pp/sigma, NFP showed 3% [AR228] of rising parts, 3% [AT228] of falling parts, 0% [AV228]of them were strong, and 8% [AU228] of V and A shapes. IDP showed 11% [AR234] of rising parts, 11% [AT234] of falling parts, 17% [AV234]of them were strong, and 33% [AU234] of V and A shapes.

Total For knn, NFP showed 20% [AR241] of rising parts, 10% [AT241] of falling parts, 27% [AV241]of them were strong, and 30% [AU241] of V and A shapes. IDP showed 23% [AR243] of rising parts, 17% [AT243] of falling parts, 30% [AV243]of them were strong, and 50% [AU243] of V and A shapes.

For pp/sigma, NFP showed 6% [AR242] of rising parts, 9% [AT242] of falling parts, 3% [AV242]of them were strong, and 13% [AU242] of V and A shapes. IDP showed 8% [AR244] of rising parts, 20% [AT244] of falling parts, 23% [AV244]of them were strong, and 27% [AU244] of V and A shapes.

2 AFFINITY TYPE

2.1 Protein type

2.1.1 Width.

NFP For knn, Entropic affinities showed 65% [AC23] of narrow shapes, 19% [AE23] of wide shapes, and 22% [AF23] of changes. Plain affinities showed 36% [AC25] of narrow shapes, 47% [AE25] of wide shapes, and 50% [AF25] of changes.

For pp/sigma, Entropic affinities showed 70% [AC24] of narrow shapes, 6% [AE24] of wide shapes, and 44% [AF24] of changes. Plain affinities showed 14% [AC26] of narrow shapes, 67% [AE26] of wide shapes, and 8% [AF26] of changes.

IDP For knn, Entropic affinities showed 44% [AG23] of narrow shapes, 35% [AI23] of wide shapes, and 56% [AJ23] of changes. Plain affinities showed 22% [AG25] of narrow shapes, 67% [AI25] of wide shapes, and 83% [AJ25] of changes.

For pp/sigma, Entropic affinities showed 65% [AG24] of narrow shapes, 9% [AI24] of wide shapes, and 67% [AJ24] of changes. Plain affinities showed 0% [AG26] of narrow shapes, 89% [AI26] of wide shapes, and 25% [AJ26] of changes.

Total For knn, Entropic affinities showed 55% [AK23] of narrow shapes, 27% [AM23] of wide shapes, and 39% [AN23] of changes. Plain affinities showed 29% [AK25] of narrow shapes, 57% [AM25] of wide shapes, and 67% [AN25] of changes.

For pp/sigma, Entropic affinities showed 68% [AK24] of narrow shapes, 7% [AM24] of wide shapes, and 56% [AN24] of changes. Plain affinities showed 7% [AK26] of narrow shapes, 78% [AM26] of wide shapes, and 17% [AN26] of changes.

2.1.2 Shape.

NFP For knn, Entropic affinities showed 13% [AC267] of rising parts, 6% [AE267] of falling parts, 6% [AG267]of them were strong, and 17% [AF267] of V and A shapes. Plain affinities showed 31% [AH267] of rising parts, 17% [AJ267] of falling parts, 58% [AL267]of them were strong, and 50% [AK267] of V and A shapes.

For pp/sigma, Entropic affinities showed 9% [AC268] of rising parts, 11% [AE268] of falling parts, 0% [AG268]of them were strong, and 22% [AF268] of V and A shapes. Plain affinities showed 0% [AH268] of rising parts, 6% [AJ268] of falling parts, 8% [AL268]of them were strong, and 0% [AK268] of V and A shapes.

IDP For knn, Entropic affinities showed 17% [AC269] of rising parts, 11% [AE269] of falling parts, 17% [AG269]of them were strong, and 28% [AF269] of V and A shapes. Plain affinities showed 33% [AH269] of rising parts, 25% [AJ269] of falling parts, 50% [AL269]of them were strong, and 83% [AK269] of V and A shapes.

For pp/sigma, Entropic affinities showed 13% [AC270] of rising parts, 26% [AE270] of falling parts, 17% [AG270]of them were strong, and 22% [AF270] of V and A shapes. Plain

affinities showed 0% [AH270] of rising parts, 11% [AJ270] of falling parts, 33% [AL270]of them were strong, and 33% [AK270] of V and A shapes.

Total For knn, Entropic affinities showed 15% [AC271] of rising parts, 8% [AE271] of falling parts, 11% [AG271]of them were strong, and 22% [AF271] of V and A shapes. Plain affinities showed 32% [AH271] of rising parts, 21% [AJ271] of falling parts, 54% [AL271]of them were strong, and 67% [AK271] of V and A shapes.

For pp/sigma, Entropic affinities showed 11% [AC272] of rising parts, 19% [AE272] of falling parts, 8% [AG272]of them were strong, and 22% [AF272] of V and A shapes. Plain affinities showed 0% [AH272] of rising parts, 8% [AJ272] of falling parts, 21% [AL272]of them were strong, and 17% [AK272] of V and A shapes.

2.2 Algorithms

2.2.1 Width.

SC For knn, Entropic affinities showed 19% [AC99] of narrow shapes, 47% [AE99] of wide shapes, and 42% [AF99] of changes. Plain affinities showed 29% [AF99] of narrow shapes, 58% [AI99] of wide shapes, and 88% [AJ99] of changes.

For pp/sigma, Entropic affinities showed 81% [AC100] of narrow shapes, 0% [AE100] of wide shapes, and 50% [AF100] of changes. Plain affinities showed 8% [AG100] of narrow shapes, 71% [AI100] of wide shapes, and 38% [AJ100] of changes.

SDS For knn, Entropic affinities showed 81% [AC101] of narrow shapes, 8% [AE101] of wide shapes, and 25% [AF101] of changes. Plain affinities showed 8% [AF101] of narrow shapes, 71% [AI101] of wide shapes, and 50% [AJ101] of changes.

For pp/sigma, Entropic affinities showed 67% [AC102] of narrow shapes, 6% [AE101] of wide shapes, and 67% [AF102] of changes. Plain affinities showed 0% [AG102] of narrow shapes, 75% [AI102] of wide shapes, and 13% [AJ102] of changes.

SES For knn, Entropic affinities showed 64% [AC103] of narrow shapes, 25% [AE103] of wide shapes, and 50% [AF103] of changes. Plain affinities showed 50% [AF103] of narrow shapes, 42% [AI103] of wide shapes, and 63% [AJ103] of changes.

For pp/sigma, Entropic affinities showed 56% [AC104] of narrow shapes, 17% [AE104] of wide shapes, and 50% [AF104] of changes. Plain affinities showed 12.5% [AG104] of narrow shapes, 87.5% [AI100] of wide shapes, and 0% [AJ100] of changes.

Total For knn, Entropic affinities showed 55% [AC109] of narrow shapes, 27% [AE109] of wide shapes, and 39% [AF109] of changes. Plain affinities showed 29% [AF109] of narrow shapes, 57% [AI109] of wide shapes, and 67% [AJ109] of changes.

For pp/sigma, Entropic affinities showed 68% [AC109] of narrow shapes, 7% [AE109] of wide shapes, and 56% [AF109] of changes. Plain affinities showed 7% [AG109] of narrow

shapes, 78% [AI109] of wide shapes, and 17% [AJ109] of changes.

2.2.2 Shape.

SC For knn, Entropic affinities showed 3% [AC261] of rising parts, 6% [AE261] of falling parts, 0% [AG261]of them were strong, and 8% [AF261] of V and A shapes. Plain affinities showed 17% [AH261] of rising parts, 13% [AJ261] of falling parts, 25% [AL261]of them were strong, and 88% [AK261] of V and A shapes.
For pp/sigma, Entropic affinities showed 11% [AC262] of rising parts, 28% [AE262] of falling parts, 17% [AG262]of them were strong, and 33% [AF262] of V and A shapes. Plain affinities showed 0% [AH262] of rising parts, 0% [AJ262] of falling parts, 0% [AL262]of them were strong, and 25% [AK262] of V and A shapes.

SDS For knn, Entropic affinities showed 8% [AC263] of rising parts, 8% [AE263] of falling parts, 8% [AG263]of them were strong, and 25% [AF263] of V and A shapes. Plain affinities showed 4% [AH263] of rising parts, 50% [AJ263] of falling parts, 63% [AL263]of them were strong, and 88% [AK263] of V and A shapes.
For pp/sigma, Entropic affinities showed 8% [AC264] of rising parts, 8% [AE264] of falling parts, 0% [AG264]of them were strong, and 17% [AF264] of V and A shapes. Plain affinities showed 0% [AH264] of rising parts, 25% [AJ264] of falling parts, 63% [AL264]of them were strong, and 25% [AK264] of V and A shapes.

SES For knn, Entropic affinities showed 33% [AC265] of rising parts, 11% [AE265] of falling parts, 25% [AG265]of them were strong, and 33% [AF265] of V and A shapes. Plain affinities showed 75% [AH265] of rising parts, 0% [AJ265] of falling parts, 75% [AL265]of them were strong, and 25% [AK265] of V and A shapes.
For pp/sigma, Entropic affinities showed 14% [AC266] of rising parts, 19% [AE266] of falling parts, 8% [AG266]of them were strong, and 17% [AF266] of V and A shapes. Plain affinities showed 0% [AH266] of rising parts, 0% [AJ266] of falling parts, 0% [AL266]of them were strong, and 0% [AK266] of V and A shapes.

Total For knn, Entropic affinities showed 15% [AC271] of rising parts, 8% [AE271] of falling parts, 11% [AG271]of them were strong, and 22% [AF271] of V and A shapes. Plain affinities showed 32% [AH271] of rising parts, 21% [AJ271] of falling parts, 54% [AL271]of them were strong, and 67% [AK271] of V and A shapes.
For pp/sigma, Entropic affinities showed 11% [AC272] of rising parts, 19% [AE272] of falling parts, 8% [AG272]of them were strong, and 22% [AF272] of V and A shapes. Plain affinities showed 0% [AH272] of rising parts, 8% [AJ272] of falling parts, 21% [AL272]of them were strong, and 17% [AK272] of V and A shapes.

2.3 Data sparsity

2.3.1 Width.

DN For knn, Entropic affinities showed 33% [AK5] of narrow shapes, 42% [AM5] of wide shapes, and 67% [AN5] of changes. For pp, Entropic affinities showed 53% [AK6] of narrow shapes, 19% [AM6] of wide shapes, and 67% [AN6] of changes.

SP For knn, Entropic affinities showed 69% [AK7] of narrow shapes, 8% [AM7] of wide shapes, and 25% [AN7] of changes. Plain affinities showed 17% [AK13] of narrow shapes, 78% [AM13] of wide shapes, and 58% [AN13] of changes.
For pp/sigma, Entropic affinities showed 72% [AK8] of narrow shapes, 0% [AM8] of wide shapes, and 50% [AN8] of changes. Plain affinities showed 14% [AK14] of narrow shapes, 64% [AM14] of wide shapes, and 25% [AN14] of changes.

SS For knn, Entropic affinities showed 61% [AK9] of narrow shapes, 31% [AM9] of wide shapes, and 25% [AN9] of changes. Plain affinities showed 42% [AK15] of narrow shapes, 36% [AM15] of wide shapes, and 75% [AN15] of changes.
For pp/sigma, Entropic affinities showed 78% [AK10] of narrow shapes, 3% [AM10] of wide shapes, and 50% [AN10] of changes. Plain affinities showed 0% [AK16] of narrow shapes, 92% [AM16] of wide shapes, and 8% [AN16] of changes.

Total For knn, Entropic affinities showed 55% [AK23] of narrow shapes, 27% [AM23] of wide shapes, and 39% [AN23] of changes. Plain affinities showed 29% [AK25] of narrow shapes, 57% [AM25] of wide shapes, and 67% [AN25] of changes.
For pp/sigma, Entropic affinities showed 68% [AK24] of narrow shapes, 7% [AM24] of wide shapes, and 56% [AN24] of changes. Plain affinities showed 7% [AK26] of narrow shapes, 78% [AM26] of wide shapes, and 17% [AN26] of changes.

2.3.2 Shape.

DN For knn, Entropic affinities showed 25% [AM145] of rising parts, 14% [AO145] of falling parts, 25% [AQ145]of them were strong, and 50% [AP145] of V and A shapes. For pp, Entropic affinities showed 11% [AM146] of rising parts, 33% [AO146] of falling parts, 17% [AQ146]of them were strong, and 17% [AP146] of V and A shapes.

SP For knn, Entropic affinities showed 14% [AM147] of rising parts, 8% [AO147] of falling parts, 0% [AQ147]of them were strong, and 17% [AP147] of V and A shapes. Plain affinities showed 25% [AM153] of rising parts, 19% [AO153] of falling parts, 33% [AQ153]of them were strong, and 67% [AP153] of V and A shapes.
For pp/sigma, Entropic affinities showed 8% [AM148] of rising parts, 17% [AO148] of falling parts, 8% [AQ148]of them were strong, and 25% [AP148] of V and A shapes. Plain affinities showed 0% [AM154] of rising parts, 8% [AO154] of falling parts, 25% [AQ154]of them were strong, and 17% [AP154] of V and A shapes.

SS For knn, Entropic affinities showed 6% [AM149] of rising parts, 3% [AO149] of falling parts, 8% [AQ149]of them were strong, and 0% [AP149] of V and A shapes. Plain affinities showed 39% [AM155] of rising parts, 22% [AO155] of falling parts, 75% [AQ155]of them were strong, and 67% [AP155] of V and A shapes.
For pp/sigma, Entropic affinities showed 14% [AM150] of rising parts, 6% [AO150] of falling parts, 0% [AQ150]of them

were strong, and 25% [AP150] of V and A shapes. Plain affinities showed 0% [AM156] of rising parts, 8% [AO156] of falling parts, 17% [AQ156]of them were strong, and 17% [AP156] of V and A shapes.

Total For knn, Entropic affinities showed 15% [AM149] of rising parts, 8% [AO149] of falling parts, 11% [AQ149]of them were strong, and 22% [AP149] of V and A shapes. Plain affinities showed 32% [AM155] of rising parts, 21% [AO155] of falling parts, 54% [AQ155]of them were strong, and 67% [AP155] of V and A shapes.

For pp/sigma, Entropic affinities showed 11% [AM150] of rising parts, 19% [AO150] of falling parts, 8% [AQ150]of them were strong, and 22% [AP150] of V and A shapes. Plain affinities showed 0% [AM156] of rising parts, 8% [AO156] of falling parts, 21% [AQ156]of them were strong, and 17% [AP156] of V and A shapes.

3 ALGORITHM TYPE

3.1 Protein

3.1.1 Width.

NFP For knn, SC algorithm showed 27% [AK87] of narrow shapes, 47% [AM87] of wide shapes, and 30% [AN87] of changes. SDS algorithm showed 60% [AK89] of narrow shapes, 20% [AM89] of wide shapes, and 30% [AN89] of changes. SES algorithm showed 73% [AK91] of narrow shapes, 23% [AM91] of wide shapes, and 40% [AN91] of changes. For pp/sigma, SC algorithm showed 60% [AK88] of narrow shapes, 30% [AM88] of wide shapes, and 20% [AN88] of changes. SDS algorithm showed 40% [AK90] of narrow shapes, 20% [AM90] of wide shapes, and 40% [AN90] of changes. SES algorithm showed 43% [AK92] of narrow shapes, 40% [AM92] of wide shapes, and 30% [AN92] of changes.

IDP For knn, SC algorithm showed 20% [AK93] of narrow shapes, 57% [AM93] of wide shapes, and 90% [AN93] of changes. SDS algorithm showed 43% [AK95] of narrow shapes, 47% [AM95] of wide shapes, and 40% [AN95] of changes. SES algorithm showed 43% [AK97] of narrow shapes, 40% [AM97] of wide shapes, and 70% [AN97] of changes.

For pp/sigma, SC algorithm showed 43% [AK94] of narrow shapes, 27% [AM94] of wide shapes, and 70% [AN94] of changes. SDS algorithm showed 40% [AK96] of narrow shapes, 47% [AM96] of wide shapes, and 50% [AN96] of changes. SES algorithm showed 33% [AK98] of narrow shapes, 50% [AM98] of wide shapes, and 30% [AN98] of changes.

Total For knn, SC algorithm showed 23% [AK99] of narrow shapes, 52% [AM99] of wide shapes, and 60% [AN99] of changes. SDS algorithm showed 52% [AK101] of narrow shapes, 33% [AM101] of wide shapes, and 35% [AN101] of changes. SES algorithm showed 58% [AK103] of narrow shapes, 32% [AM103] of wide shapes, and 55% [AN103] of changes.

For pp/sigma, SC algorithm showed 52% [AK100] of narrow shapes, 28% [AM100] of wide shapes, and 45% [AN100] of changes. SDS algorithm showed 40% [AK102] of narrow shapes, 33% [AM102] of wide shapes, and 45% [AN102] of changes. SES algorithm showed 38% [AK104] of narrow

shapes, 45% [AM104] of wide shapes, and 30% [AN104] of changes.

3.1.2 Shape.

NFP For knn, SC algorithm showed 17% [AH249] of rising parts, 8% [AJ249] of falling parts, 50% [AL249] of them were strong, and 75% [AK249] of V and A shapes. SDS algorithm showed 8% [AH251] of rising parts, 42% [AJ251] of falling parts, 50% [AL251] of them were strong, and 75% [AK251] of V and A shapes. SES algorithm showed 67% [AH253] of rising parts, 0% [AJ253] of falling parts, 75% [AL253] of them were strong, and 0% [AK253] of V and A shapes.

For pp/sigma, SC algorithm showed 0% [AH250] of rising parts, 0% [AJ250] of falling parts, 0% [AL250] of them were strong, and 0% [AK250] of V and A shapes. SDS algorithm showed 0% [AH252] of rising parts, 17% [AJ252] of falling parts, 25% [AL252] of them were strong, and 0% [AK252] of V and A shapes. SES algorithm showed 0% [AH254] of rising parts, 0% [AJ254] of falling parts, 0% [AL254] of them were strong, and 0% [AK254] of V and A shapes.

IDP For knn, SC algorithm showed 17% [AH255] of rising parts, 17% [AJ255] of falling parts, 0% [AL255] of them were strong, and 100% [AK255] of V and A shapes. SDS algorithm showed 0% [AH257] of rising parts, 58% [AJ257] of falling parts, 75% [AL257] of them were strong, and 100% [AK257] of V and A shapes. SES algorithm showed 83% [AH259] of rising parts, 0% [AJ259] of falling parts, 75% [AL259] of them were strong, and 50% [AK259] of V and A shapes.

For pp/sigma, SC algorithm showed 0% [AH256] of rising parts, 0% [AJ256] of falling parts, 0% [AL256] of them were strong, and 50% [AK256] of V and A shapes. SDS algorithm showed 0% [AH258] of rising parts, 33% [AJ258] of falling parts, 100% [AL258]of them were strong, and 50% [AK258] of V and A shapes. SES algorithm showed 0% [AH260] of rising parts, 0% [AJ260] of falling parts, 0% [AL260] of them were strong, and 0% [AK260] of V and A shapes.

Total For knn, SC algorithm showed 17% [AH261] of rising parts, 13% [AJ261] of falling parts, 25% [AL261] of them were strong, and 88% [AK261] of V and A shapes. SDS algorithm showed 4% [AH263] of rising parts, 50% [AJ263] of falling parts, 63% [AL263] of them were strong, and 88% [AK263] of V and A shapes. SES algorithm showed 75% [AH265] of rising parts, 0% [AJ265] of falling parts, 75% [AL265] of them were strong, and 25% [AK265] of V and A shapes.

For pp/sigma, SC algorithm showed 0% [AH262] of rising parts, 0% [AJ262] of falling parts, 0% [AL262] of them were strong, and 25% [AK262] of V and A shapes. SDS algorithm showed 0% [AH264] of rising parts, 25% [AJ264] of falling parts, 63% [AL264] of them were strong, and 25% [AK264] of V and A shapes. SES algorithm showed 0% [AH266] of rising parts, 0% [AJ266] of falling parts, 0% [AL266] of them were strong, and 0% [AK266] of V and A shapes.

3.2 Affinity

3.2.1 Width.

EN For knn, SC algorithm showed 19% [AC99] of narrow shapes, 47% [AE99] of wide shapes, and 42% [AF99] of changes. SDS algorithm showed 81% [AC101] of narrow shapes, 8% [AE101] of wide shapes, and 25% [AF101] of changes. SES algorithm showed 64% [AC103] of narrow shapes, 25% [AE103] of wide shapes, and 50% [AF103] of changes.

For pp, SC algorithm showed 81% [AC100] of narrow shapes, 0% [AE100] of wide shapes, and 50% [AF100] of changes. SDS algorithm showed 67% [AC102] of narrow shapes, 6% [AE102] of wide shapes, and 67% [AF102] of changes. SES algorithm showed 56% [AC104] of narrow shapes, 17% [AE104] of wide shapes, and 50% [AF104] of changes.

PL For knn, SC algorithm showed 29% [AG99] of narrow shapes, 58% [AI99] of wide shapes, and 88% [AJ99] of changes. SDS algorithm showed 8% [AG101] of narrow shapes, 71% [AI101] of wide shapes, and 50% [AJ101] of changes. SES algorithm showed 50% [AG103] of narrow shapes, 42% [AI103] of wide shapes, and 63% [AJ103] of changes.

For sigma, SC algorithm showed 8% [AG100] of narrow shapes, 71% [AI100] of wide shapes, and 38% [AJ100] of changes. SDS algorithm showed 0% [AG102] of narrow shapes, 75% [AI102] of wide shapes, and 13% [AJ102] of changes. SES algorithm showed 12.5% [AG104] of narrow shapes, 87.5% [AI104] of wide shapes, and 0% [AJ104] of changes.

Total For knn, SC algorithm showed 23% [AK99] of narrow shapes, 52% [AM99] of wide shapes, and 60% [AN99] of changes. SDS algorithm showed 52% [AK101] of narrow shapes, 33% [AM101] of wide shapes, and 35% [AN101] of changes. SES algorithm showed 58% [AK103] of narrow shapes, 32% [AM103] of wide shapes, and 55% [AN103] of changes.

For pp/sigma, SC algorithm showed 52% [AK100] of narrow shapes, 28% [AM100] of wide shapes, and 45% [AN100] of changes. SDS algorithm showed 40% [AK102] of narrow shapes, 33% [AM102] of wide shapes, and 45% [AN102] of changes. SES algorithm showed 38% [AK104] of narrow shapes, 45% [AM104] of wide shapes, and 30% [AN104] of changes.

3.2.2 Shape.

EN For knn, SC algorithm showed 3% [AC261] of rising parts, 6% [AE261] of falling parts, 0% [AG261] of them were strong, and 8% [AF261] of V and A shapes. SDS algorithm showed 8% [AC263] of rising parts, 8% [AE263] of falling parts, 8% [AG263] of them were strong, and 25% [AF263] of V and A shapes. SES algorithm showed 33% [AC265] of rising parts, 11% [AE265] of falling parts, 25% [AG265] of them were strong, and 33% [AF265] of V and A shapes.

For pp, SC algorithm showed 11% [AC262] of rising parts, 28% [AE262] of falling parts, 17% [AG262] of them were strong, and 33% [AF262] of V and A shapes. SDS algorithm showed 8% [AC264] of rising parts, 8% [AE264] of falling parts, 0% [AG264] of them were strong, and 17% [AF264] of V and A shapes. SES algorithm showed 14% [AC266] of rising parts, 19% [AE266] of falling parts, 8% [AG266] of them were strong, and 17% [AF266] of V and A shapes.

PL For knn, SC algorithm showed 17% [AH261] of rising parts, 13% [AJ261] of falling parts, 25% [AL261] of them were strong, and 88% [AK261] of V and A shapes. SDS algorithm showed 4% [AH263] of rising parts, 50% [AJ263] of falling parts, 63% [AL263] of them were strong, and 88% [AK263] of V and A shapes. SES algorithm showed 75% [AH265] of rising parts, 0% [AJ265] of falling parts, 75% [AL265] of them were strong, and 25% [AK265] of V and A shapes.

For sigma, SC algorithm showed 0% [AH262] of rising parts, 0% [AJ262] of falling parts, 0% [AL262] of them were strong, and 25% [AK262] of V and A shapes. SDS algorithm showed 0% [AH264] of rising parts, 25% [AJ264] of falling parts, 63% [AL264] of them were strong, and 25% [AK264] of V and A shapes. SES algorithm showed 0% [AH266] of rising parts, 0% [AJ266] of falling parts, 0% [AL266] of them were strong, and 0% [AK266] of V and A

Total For knn, SC algorithm showed 8% [AM261] of rising parts, 8% [AO261] of falling parts, 10% [AQ261] of them were strong, and 40% [AP261] of V and A shapes. SDS algorithm showed 7% [AM263] of rising parts, 25% [AO263] of falling parts, 30% [AQ263] of them were strong, and 50% [AP263] of V and A shapes. SES algorithm showed 50% [AM265] of rising parts, 7% [AO265] of falling parts, 45% [AQ265] of them were strong, and 30% [AP265] of V and A shapes.

For pp/sigma, SC algorithm showed 7% [AM262] of rising parts, 17% [AO262] of falling parts, 10% [AQ262] of them were strong, and 30% [AP262] of V and A shapes. SDS algorithm showed 5% [AM264] of rising parts, 15% [AO264] of falling parts, 25% [AQ264] of them were strong, and 20% [AP264] of V and A shapes. SES algorithm showed 8% [AM266] of rising parts, 12% [AO266] of falling parts, 5% [AQ266] of them were strong, and 10% [AP266] of V and A

3.3 Sparsity

3.3.1 Width.

DN For knn, SC algorithm showed 8% [AC127] of narrow shapes, 42% [AE127] of wide shapes, and 50% [AF127] of changes. SDS algorithm showed 58% [AC129] of narrow shapes, 17% [AE129] of wide shapes, and 50% [AF129] of changes. SES algorithm showed 33% [AC131] of narrow shapes, 67% [AE131] of wide shapes, and 100% [AF131] of changes.

For pp, SC algorithm showed 92% [AC128] of narrow shapes, 0% [AE128] of wide shapes, and 25% [AF128] of changes. SDS algorithm showed 50% [AC130] of narrow shapes, 8% [AE130] of wide shapes, and 75% [AF130] of changes. SES algorithm showed 17% [AC132] of narrow shapes, 50% [AE132] of wide shapes, and 100% [AF132] of changes.

SP For knn, SC algorithm showed 29% [AG127] of narrow shapes, 54% [AI127] of wide shapes, and 63% [AJ127] of changes. SDS algorithm showed 50% [AG129] of narrow shapes, 42% [AI129] of wide shapes, and 13% [AJ129] of changes. SES algorithm showed 50% [AG131] of narrow shapes, 33% [AI131] of wide shapes, and 50% [AJ131] of changes.

For pp/sigma, SC algorithm showed 50% [AG128] of narrow shapes, 21% [AI128] of wide shapes, and 50% [AJ128] of changes. SDS algorithm showed 38% [AG130] of narrow

shapes, 38% [AI129] of wide shapes, and 50% [AJ130] of changes. SES algorithm showed 42% [AG132] of narrow shapes, 38% [AI132] of wide shapes, and 13% [AJ132] of changes.

SS   For knn, SC algorithm showed 22% [AK127] of narrow shapes, 50% [AM127] of wide shapes, and 58% [AN127] of changes. SDS algorithm showed 53% [AK129] of narrow shapes, 33% [AM129] of wide shapes, and 42% [AN129] of changes. SES algorithm showed 44% [AK131] of narrow shapes, 44% [AM131] of wide shapes, and 67% [AN131] of changes.

For pp/sigma, SC algorithm showed 64% [AK128] of narrow shapes, 14% [AM128] of wide shapes, and 42% [AN128] of changes. SDS algorithm showed 42% [AK130] of narrow shapes, 28% [AM129] of wide shapes, and 67% [AN130] of changes. SES algorithm showed 33% [AK132] of narrow shapes, 42% [AM132] of wide shapes, and 42% [AN132] of changes.

Total   For knn, SC algorithm showed 25% [AO127] of narrow shapes, 52% [AQ127] of wide shapes, and 60% [AR127] of changes. SDS algorithm showed 52% [AO129] of narrow shapes, 37% [AQ129] of wide shapes, and 30% [AR129] of changes. SES algorithm showed 47% [AO131] of narrow shapes, 40% [AQ131] of wide shapes, and 60% [AR131] of changes.

For pp/sigma, SC algorithm showed 58% [AO128] of narrow shapes, 17% [AQ128] of wide shapes, and 45% [AR128] of changes. SDS algorithm showed 40% [AO130] of narrow shapes, 32% [AQ129] of wide shapes, and 60% [AR130] of changes. SES algorithm showed 37% [AO132] of narrow shapes, 40% [AQ132] of wide shapes, and 30% [AR132] of changes.

3.3.2   Shape.

DN   For knn, SC algorithm showed 8% [AC289] of rising parts, 8% [AE289] of falling parts, 0% [AG289] of them were strong, and 0% [AF289] of V and A shapes. SDS algorithm showed 17% [AC291] of rising parts, 8% [AE291] of falling parts, 0% [AG291] of them were strong, and 50% [AF291] of V and A shapes. SES algorithm showed 50% [AC293] of rising parts, 25% [AE293] of falling parts, 75% [AG293] of them were strong, and 100% [AF293] of V and A shapes.

For pp, SC algorithm showed 8% [AC290] of rising parts, 42% [AE290] of falling parts, 25% [AG290] of them were strong, and 0% [AF290] of V and A shapes. SDS algorithm showed 17% [AC292] of rising parts, 8% [AE292] of falling parts, 0% [AG292] of them were strong, and 25% [AF292] of V and A shapes. SES algorithm showed 8% [AC294] of rising parts, 50% [AE294] of falling parts, 25% [AG294] of them were strong, and 25% [AF294] of V and A shapes.

SP   For knn, SC algorithm showed 4% [AH289] of rising parts, 8% [AJ289] of falling parts, 0% [AL289] of them were strong, and 50% [AK289] of V and A shapes. SDS algorithm showed 8% [AH291] of rising parts, 29% [AJ291] of falling parts, 25% [AL291] of them were strong, and 63% [AK291] of V and A shapes. SES algorithm showed 46% [AH293] of rising parts, 4% [AJ293] of falling parts, 25% [AL293] of them were strong, and 13% [AK293] of V and A shapes.

For pp/sigma, SC algorithm showed 0% [AH290] of rising

parts, 17% [AJ290] of falling parts, 13% [AL290] of them were strong, and 25% [AK290] of V and A shapes. SDS algorithm showed 4% [AH292] of rising parts, 17% [AJ292] of falling parts, 38% [AL292] of them were strong, and 25% [AK292] of V and A shapes. SES algorithm showed 8% [AH294] of rising parts, 4% [AJ294] of falling parts, 0% [AL294] of them were strong, and 13% [AK294] of V and A shapes.

SS   For knn, SC algorithm showed 13% [AM289] of rising parts, 8% [AO289] of falling parts, 25% [AQ289] of them were strong, and 50% [AP289] of V and A shapes. SDS algorithm showed 0% [AM291] of rising parts, 29% [AO291] of falling parts, 50% [AQ291] of them were strong, and 38% [AP291] of V and A shapes. SES algorithm showed 54% [AM293] of rising parts, 0% [AO293] of falling parts, 50% [AQ293] of them were strong, and 13% [AP293] of V and A shapes.

For pp/sigma, SC algorithm showed 13% [AM290] of rising parts, 4% [AO290] of falling parts, 0% [AQ290] of them were strong, and 50% [AP290] of V and A shapes. SDS algorithm showed 0% [AM292] of rising parts, 17% [AO292] of falling parts, 25% [AQ292] of them were strong, and 13% [AP292] of V and A shapes. SES algorithm showed 8% [AM294] of rising parts, 0% [AO294] of falling parts, 0% [AQ294] of them were strong, and 0% [AP294] of V and A shapes.

Total   For knn, SC algorithm showed 8% [AR289] of rising parts, 8% [AT289] of falling parts, 10% [AV289] of them were strong, and 40% [AU289] of V and A shapes. SDS algorithm showed 7% [AR291] of rising parts, 25% [AT291] of falling parts, 30% [AV291] of them were strong, and 50% [AU291] of V and A shapes. SES algorithm showed 50% [AR293] of rising parts, 7% [AT293] of falling parts, 45% [AV293] of them were strong, and 30% [AU293] of V and A shapes.

For pp/sigma, SC algorithm showed 7% [AR290] of rising parts, 17% [AT290] of falling parts, 10% [AV290] of them were strong, and 30% [AU290] of V and A shapes. SDS algorithm showed 5% [AR292] of rising parts, 15% [AT292] of falling parts, 25% [AV292] of them were strong, and 20% [AU292] of V and A shapes. SES algorithm showed 8% [AR294] of rising parts, 12% [AT294] of falling parts, 5% [AV294] of them were strong, and 10% [AU294] of V and A shapes.

4   SPARSITY TYPE

4.1   Protein type

4.1.1   Width.

NFP   For knn, dense data showed 33% [AC133] of narrow shapes, 39% [AE133] of wide shapes, and 50% [AF133] of changes. sparse data showed 53% [AG133] of narrow shapes, 36% [AI133] of wide shapes, and 33% [AJ133] of changes. supersparse data showed 46% [AK133] of narrow shapes, 37% [AM133] of wide shapes, and 44% [AN133] of changes.

For pp/sigma, dense data showed 56% [AC134] of narrow shapes, 17% [AE134] of wide shapes, and 50% [AF134] of changes. sparse data showed 50% [AG134] of narrow shapes, 25% [AI134] of wide shapes, and 33% [AJ134] of changes. supersparse data showed 52% [AK134] of narrow shapes, 22% [AM134] of wide shapes, and 44% [AN134] of changes.

IDP For knn, dense data showed 33% [AC135] of narrow shapes, 44% [AE135] of wide shapes, and 83% [AF135] of changes. sparse data showed 33% [AG135] of narrow shapes, 50% [AI135] of wide shapes, and 50% [AJ135] of changes. supersparse data showed 33% [AK135] of narrow shapes, 48% [AM135] of wide shapes, and 67% [AN135] of changes.

For pp/sigma, dense data showed 50% [AC136] of narrow shapes, 22% [AE136] of wide shapes, and 83% [AF136] of changes. sparse data showed 36% [AG136] of narrow shapes, 39% [AI136] of wide shapes, and 42% [AJ136] of changes. supersparse data showed 41% [AK136] of narrow shapes, 33% [AM136] of wide shapes, and 56% [AN136] of changes.

Total For knn, dense data showed 33% [AC137] of narrow shapes, 42% [AE137] of wide shapes, and 67% [AF137] of changes. sparse data showed 43% [AG137] of narrow shapes, 43% [AI137] of wide shapes, and 42% [AJ137] of changes. supersparse data showed 40% [AK137] of narrow shapes, 43% [AM137] of wide shapes, and 56% [AN137] of changes.

For pp/sigma, dense data showed 53% [AC138] of narrow shapes, 19% [AE138] of wide shapes, and 67% [AF138] of changes. sparse data showed 43% [AG138] of narrow shapes, 32% [AI138] of wide shapes, and 38% [AJ138] of changes. supersparse data showed 46% [AK138] of narrow shapes, 28% [AM138] of wide shapes, and 50% [AN138] of changes.

4.1.2 Shape.

NFP For knn, dense data showed 28% [AC295] of rising parts, 17% [AE295] of falling parts, 17% [AG295] of them were strong, and 50% [AF295] of V and A shapes. sparse data showed 17% [AH295] of rising parts, 8% [AJ295] of falling parts, 17% [AL295] of them were strong, and 25% [AK295] of V and A shapes. supersparse data showed 19% [AM295] of rising parts, 8% [AO295] of falling parts, 42% [AQ295] of them were strong, and 25% [AP295] of V and A shapes.

For pp/sigma, dense data showed 11% [AC296] of rising parts, 17% [AE296] of falling parts, 0% [AG296] of them were strong, and 17% [AF296] of V and A shapes. sparse data showed 6% [AH296] of rising parts, 11% [AJ296] of falling parts, 8% [AL296] of them were strong, and 17% [AK296] of V and A shapes. supersparse data showed 3% [AM296] of rising parts, 3% [AO296] of falling parts, 0% [AQ296] of them were strong, and 8% [AP296] of V and A shapes.

IDP For knn, dense data showed 22% [AC297] of rising parts, 11% [AE297] of falling parts, 33% [AG297] of them were strong, and 50% [AF297] of V and A shapes. sparse data showed 22% [AH297] of rising parts, 19% [AJ297] of falling parts, 17% [AL297] of them were strong, and 58% [AK297] of V and A shapes. supersparse data showed 25% [AM297] of rising parts, 17% [AO297] of falling parts, 42% [AQ297] of them were strong, and 42% [AP297] of V and A shapes.

For pp/sigma, dense data showed 11% [AC298] of rising parts, 50% [AE298] of falling parts, 33% [AG298] of them were strong, and 17% [AF298] of V and A shapes. sparse data showed 3% [AH298] of rising parts, 14% [AJ298] of falling parts, 25% [AL298] of them were strong, and 25% [AK298] of V and A shapes. supersparse data showed 11% [AM298]

of rising parts, 11% [AO298] of falling parts, 17% [AQ298] of them were strong, and 33% [AP298] of V and A shapes.

Total For knn, dense data showed 25% [AC299] of rising parts, 14% [AE299] of falling parts, 25% [AG299] of them were strong, and 50% [AF299] of V and A shapes. sparse data showed 19% [AH299] of rising parts, 14% [AJ299] of falling parts, 17% [AL299] of them were strong, and 42% [AK299] of V and A shapes. supersparse data showed 22% [AM299] of rising parts, 13% [AO299] of falling parts, 42% [AQ299] of them were strong, and 33% [AP299] of V and A shapes.

For pp/sigma, dense data showed 11% [AC300] of rising parts, 33% [AE300] of falling parts, 17% [AG300] of them were strong, and 17% [AF300] of V and A shapes. sparse data showed 4% [AH300] of rising parts, 13% [AJ300] of falling parts, 17% [AL300] of them were strong, and 21% [AK300] of V and A shapes. supersparse data showed 7% [AM300] of rising parts, 7% [AO300] of falling parts, 8% [AQ300] of them were strong, and 21% [AP300] of V and A shapes.

4.2 Affinity type

4.2.1 Width.

EN For knn, dense data showed 33% [AK5] of narrow shapes, 42% [AM5] of wide shapes, and 67% [AN5] of changes. sparse data showed 69% [AK7] of narrow shapes, 8% [AM7] of wide shapes, and 25% [AN7] of changes. supersparse data showed 61% [AK9] of narrow shapes, 31% [AM9] of wide shapes, and 25% [AN9] of changes.

For pp, dense data showed 53% [AK6] of narrow shapes, 19% [AM6] of wide shapes, and 67% [AN6] of changes. sparse data showed 72% [AK8] of narrow shapes, 0% [AM8] of wide shapes, and 50% [AN8] of changes. supersparse data showed 78% [AK10] of narrow shapes, 3% [AM10] of wide shapes, and 50% [AN10] of changes.

PL For knn, sparse data showed 17% [AK13] of narrow shapes, 78% [AM13] of wide shapes, and 58% [AN13] of changes. supersparse data showed 42% [AK15] of narrow shapes, 36% [AM15] of wide shapes, and 75% [AN15] of changes.

For sigma, sparse data showed 14% [AK14] of narrow shapes, 64% [AM14] of wide shapes, and 25% [AN14] of changes. supersparse data showed 0% [AK16] of narrow shapes, 92% [AM16] of wide shapes, and 8% [AN16] of changes.

Total For knn, dense data showed 33% [AK17] of narrow shapes, 42% [AM17] of wide shapes, and 67% [AN17] of changes. sparse data showed 43% [AK19] of narrow shapes, 43% [AM19] of wide shapes, and 42% [AN19] of changes. supersparse data showed 51% [AK21] of narrow shapes, 33% [AM21] of wide shapes, and 50% [AN21] of changes.

For pp/sigma, dense data showed 53% [AK18] of narrow shapes, 19% [AM18] of wide shapes, and 67% [AN18] of changes. sparse data showed 43% [AK20] of narrow shapes, 32% [AM20] of wide shapes, and 38% [AN20] of changes. supersparse data showed 39% [AK22] of narrow shapes, 47% [AM22] of wide shapes, and 29% [AN22] of changes.

4.2.2 Shape.

EN For knn, dense data showed 25% [AM145] of rising parts, 14% [AO145] of falling parts, 25% [AQ145] of them were strong, and 50% [AP145] of V and A shapes. sparse data showed 14% [AM147] of rising parts, 8% [AO147] of falling parts, 0% [AQ147] of them were strong, and 17% [AP147] of V and A shapes. supersparse data showed 6% [AM149] of rising parts, 3% [AO149] of falling parts, 8% [AQ149] of them were strong, and 0% [AP149] of V and A shapes.

For pp, dense data showed 11% [AM146] of rising parts, 33% [AO146] of falling parts, 17% [AQ146] of them were strong, and 17% [AP146] of V and A shapes. sparse data showed 8% [AM148] of rising parts, 17% [AO148] of falling parts, 8% [AQ148] of them were strong, and 25% [AP148] of V and A shapes. supersparse data showed 14% [AM150] of rising parts, 6% [AO150] of falling parts, 0% [AQ150] of them were strong, and 25% [AP150] of V and A shapes.

PL For knn, sparse data showed 25% [AM153] of rising parts, 19% [AO153] of falling parts, 33% [AQ153] of them were strong, and 67% [AP153] of V and A shapes. supersparse data showed 39% [AM155] of rising parts, 22% [AO155] of falling parts, 75% [AQ155] of them were strong, and 67% [AP155] of V and A shapes.

For sigma, sparse data showed 0% [AM154] of rising parts, 8% [AO154] of falling parts, 25% [AQ154] of them were strong, and 17% [AP154] of V and A shapes. supersparse data showed 0% [AM156] of rising parts, 8% [AO156] of falling parts, 17% [AQ156] of them were strong, and 17% [AP156] of V and A shapes.

Total For knn, dense data showed 25% [AM157] of rising parts, 14% [AO157] of falling parts, 25% [AQ157] of them were strong, and 50% [AP157] of V and A shapes. sparse data showed 19% [AM159] of rising parts, 14% [AO159] of falling parts, 17% [AQ159] of them were strong, and 42% [AP159] of V and A shapes. supersparse data showed 22% [AM161] of rising parts, 13% [AO161] of falling parts, 42% [AQ161] of them were strong, and 33% [AP161] of V and A shapes.

For pp/sigma, dense data showed 11% [AM158] of rising parts, 33% [AO158] of falling parts, 17% [AQ158] of them were strong, and 17% [AP158] of V and A shapes. sparse data showed 4% [AM160] of rising parts, 13% [AO160] of falling parts, 17% [AQ160] of them were strong, and 21% [AP160] of V and A shapes. supersparse data showed 7% [AM162] of rising parts, 7% [AO162] of falling parts, 8% [AQ162] of them were strong, and 21% [AP162] of V and A shapes.

4.3 Algorithms

4.3.1 Width.

SC For knn, dense data showed 8% [AC127] of narrow shapes, 42% [AE127] of wide shapes, and 50% [AF127] of changes. sparse data showed 29% [AG127] of narrow shapes, 54% [AI127] of wide shapes, and 63% [AJ127] of changes. supersparse data showed 22% [AK127] of narrow shapes, 50% [AM127] of wide shapes, and 58% [AN127] of changes.

For pp/sigma, dense data showed 92% [AC128] of narrow shapes, 0% [AE128] of wide shapes, and 25% [AF128] of changes. sparse data showed 50% [AG128] of narrow shapes,

21% [AI128] of wide shapes, and 50% [AJ128] of changes. supersparse data showed 64% [AK128] of narrow shapes, 14% [AM128] of wide shapes, and 42% [AN128] of changes.

SDS For knn, dense data showed 58% [AC129] of narrow shapes, 17% [AE129] of wide shapes, and 50% [AF129] of changes. sparse data showed 50% [AG129] of narrow shapes, 42% [AI129] of wide shapes, and 13% [AJ129] of changes. supersparse data showed 53% [AK129] of narrow shapes, 33% [AM129] of wide shapes, and 42% [AN129] of changes.

For pp/sigma, dense data showed 50% [AC130] of narrow shapes, 8% [AE130] of wide shapes, and 75% [AF130] of changes. sparse data showed 38% [AG130] of narrow shapes, 38% [AI130] of wide shapes, and 50% [AJ130] of changes. supersparse data showed 42% [AK130] of narrow shapes, 28% [AM130] of wide shapes, and 67% [AN130] of changes.

SES For knn, dense data showed 33% [AC131] of narrow shapes, 67% [AE131] of wide shapes, and 100% [AF131] of changes. sparse data showed 50% [AG131] of narrow shapes, 33% [AI131] of wide shapes, and 50% [AJ131] of changes. supersparse data showed 44% [AK131] of narrow shapes, 44% [AM131] of wide shapes, and 67% [AN131] of changes. For pp/sigma, dense data showed 17% [AC132] of narrow shapes, 50% [AE132] of wide shapes, and 100% [AF132] of changes. sparse data showed 42% [AG132] of narrow shapes, 38% [AI132] of wide shapes, and 13% [AJ132] of changes. supersparse data showed 33% [AK132] of narrow shapes, 42% [AM132] of wide shapes, and 42% [AN132] of changes.

Total For knn, dense data showed 33% [AC137] of narrow shapes, 42% [AE137] of wide shapes, and 83% [AF137] of changes. sparse data showed 43% [AG137] of narrow shapes, 43% [AI137] of wide shapes, and 42% [AJ137] of changes. supersparse data showed 40% [AK137] of narrow shapes, 43% [AM137] of wide shapes, and 56% [AN137] of changes.

For pp/sigma, dense data showed 53% [AC138] of narrow shapes, 19% [AE138] of wide shapes, and 75% [AF138] of changes. sparse data showed 43% [AG138] of narrow shapes, 32% [AI138] of wide shapes, and 38% [AJ138] of changes. supersparse data showed 46% [AK138] of narrow shapes, 28% [AM138] of wide shapes, and 50% [AN138] of changes.

4.3.2 Shape.

SC For knn, dense data showed 8% [AC289] of rising parts, 8% [AE289] of falling parts, 0% [AQ289] of them were strong, and 0% [AP289] of V and A shapes. sparse data showed 4% [AH289] of rising parts, 8% [AJ289] of falling parts, 0% [AL289] of them were strong, and 50% [AK289] of V and A shapes. supersparse data showed 13% [AM289] of rising parts, 8% [AO289] of falling parts, 25% [AQ289] of them were strong, and 50% [AP289] of V and A shapes.

For pp/sigma, dense data showed 8% [AC290] of rising parts, 42% [AE290] of falling parts, 25% [AQ290] of them were strong, and 0% [AP290] of V and A shapes. sparse data showed 0% [AH290] of rising parts, 17% [AJ290] of falling parts, 13% [AL290] of them were strong, and 25% [AK290] of V and A shapes. supersparse data showed 13% [AM290]

of rising parts, 4% [AO290] of falling parts, 0% [AQ290] of them were strong, and 50% [AP290] of V and A shapes.

SDS For knn, dense data showed 17% [AC291] of rising parts, 8% [AE291] of falling parts, 0% [AQ291] of them were strong, and 50% [AP291] of V and A shapes. sparse data showed 8% [AH291] of rising parts, 29% [AJ291] of falling parts, 25% [AL291] of them were strong, and 63% [AK291] of V and A shapes. supersparse data showed 0% [AM291] of rising parts, 29% [AO291] of falling parts, 50% [AQ291] of them were strong, and 38% [AP291] of V and A shapes.

For pp/sigma, dense data showed 17% [AC292] of rising parts, 8% [AE292] of falling parts, 0% [AQ292] of them were strong, and 25% [AP292] of V and A shapes. sparse data showed 4% [AH292] of rising parts, 17% [AJ292] of falling parts, 38% [AL292] of them were strong, and 25% [AK292] of V and A shapes. supersparse data showed 0% [AM292] of rising parts, 17% [AO292] of falling parts, 25% [AQ292] of them were strong, and 13% [AP292] of V and A shapes.

SES For knn, dense data showed 50% [AC291] of rising parts, 25% [AE291] of falling parts, 75% [AQ291] of them were strong, and 100% [AP291] of V and A shapes. sparse data showed 46% [AH291] of rising parts, 4% [AJ291] of falling parts, 25% [AL291] of them were strong, and 13% [AK291] of V and A shapes. supersparse data showed 54% [AM291] of rising parts, 0% [AO291] of falling parts, 50% [AQ291] of them were strong, and 13% [AP291] of V and A shapes.

For pp/sigma, dense data showed 8% [AC292] of rising parts, 50% [AE292] of falling parts, 25% [AQ292] of them were strong, and 25% [AP292] of V and A shapes. sparse data showed 8% [AH292] of rising parts, 4% [AJ292] of falling parts, 0% [AL292] of them were strong, and 13% [AK292] of V and A shapes. supersparse data showed 8% [AM292] of rising parts, 0% [AO292] of falling parts, 0% [AQ292] of them were strong, and 0% [AP292] of V and A shapes.

Total For knn, dense data showed 25% [AC299] of rising parts, 14% [AE299] of falling parts, 25% [AQ299] of them were strong, and 50% [AP299] of V and A shapes. sparse data showed 19% [AH299] of rising parts, 14% [AJ299] of falling parts, 17% [AL299] of them were strong, and 42% [AK299] of V and A shapes. supersparse data showed 22% [AM299] of rising parts, 13% [AO299] of falling parts, 42% [AQ299] of them were strong, and 33% [AP299] of V and A shapes.

For pp/sigma, dense data showed 11% [AC300] of rising parts, 33% [AE300] of falling parts, 17% [AQ300] of them were strong, and 17% [AP300] of V and A shapes. sparse data showed 4% [AH300] of rising parts, 13% [AJ300] of falling parts, 17% [AL300] of them were strong, and 21% [AK300] of V and A shapes. supersparse data showed 7% [AM300] of rising parts, 7% [AO300] of falling parts, 8% [AQ300] of them were strong, and 21% [AP300] of V and A shapes.