**Sequential features ranked by different feature selection algorithms in both clustering and classification tasks**

**Table 1**. Names of used features

|  |  |
| --- | --- |
| 1 | Year |
| 2 | MDS-UPDRS I |
| 3 | MDS-UPDRS II |
| 4 | MDS-UPDRS III |
| 5 | Hoehn and Yahr’s score |
| 6 | MSEADL |
| 7 | SCOPA-AUT |
| 8 | SCOPA-AUT-Com |
| 9 | SCOPA-AUT |
| 10 | SCOPA-AUT-Com |
| 11 | Total STAIA |
| 12 | STAIA-section 1 |
| 13 | STAIA-section\_w\_instru1 |
| 14 | STAIA-section\_w\_instru2 |
| 15 | STAIA-section 2 |
| 16 | STAIA-section 3 |
| 17 | MoCA |
| 18 | MoCA\_Feluency |
| 19 | Sum of Moca and MoCA feluency |
| 20 | SFT |
| 21 | DVSD\_SDM |
| 22 | DVT\_SFTANIM |
| 23 | SDMTOTAL |
| 24 | DVSD\_SDM |
| 25 | DVT\_SFTANIM |
| 26 | EPWORTH |
| 27 | REMSLEEP |
| 28 | REMSLEEP\_Real |
| 29 | REMSLEEP-section 1 |
| 30 | REMSLEEP-section 2 |
| 31 | Family\_History\_H |
| 32 | Family\_History\_J |
| 33 | Family\_History\_K |
| 34 | Family\_History\_L |
| 35 | Family\_History\_M |
| 36 | Family\_History\_P |
| 37 | Family\_History\_R |
| 38 | Family\_History\_S |
| 39 | Family\_History\_T |
| 40 | Family\_History\_U |
| 41 | Family\_History\_V |
| 42 | Family\_History\_W |
| 43 | Family\_History\_X |
| 44 | GENDER |
| 45 | SC\_DEMOGRA\_SC\_P |
| 46 | SC\_DEMOGRA\_SC\_Q |
| 47 | SC\_DEMOGRA\_SC\_R |
| 48 | SC\_DEMOGRA\_SC\_S |
| 49 | SC\_DEMOGRA\_SC\_U |
| 50 | SC\_DEMOGRA\_SC\_V |
| 51 | SoE\_EDU |
| 52 | SoE\_HANDED |
| 53 | AGE |
| 54 | Conventional\_Brain region caudate\_right |
| 55 | Conventional\_Brain region caudate\_left |
| 56 | Conventional\_Brain region putamen\_right |
| 57 | Conventional\_Brain region putamen\_left |
| 58 | GNE |
| 59 | NECN |
| 60 | VS-G |
| 61 | VS-H |
| 62 | VS-I |
| 63 | VS-J |
| 64 | VS-K |
| 65 | VS-L |
| 66 | VS-M |
| 67 | VS-N |
| 68 | VS-O |
| 69 | VS-P |
| 70 | Gen1 |
| 71 | Gen2 |
| 72 | Gen3 |
| 73 | Gen4 |
| 74 | Gen5 |
| 75 | Gen6 |
| 76 | Gen7 |
| 77 | Gen8 |
| 78 | Gen9 |
| 79 | Gen10 |
| 80 | Gen11 |
| 81 | Gen12 |
| 82 | Gen13 |
| 83 | Gen14 |
| 84 | Gen15 |
| 85 | Gen16 |
| 86 | Gen17 |
| 87 | Gen18 |
| 88 | Gen19 |
| 89 | Gen20 |
| 90 | Gen21 |
| 91 | Gen22 |
| 92 | Gen23 |
| 93 | Gen24 |
| 94 | Gen25 |
| 95 | Gen26 |
| 96 | Gen27 |
| 97 | Gen28 |
| 98 | Gen29 |
| 99 | Gen30 |
| 100 | Gen31 |
| 101 | Gen32 |
| 102 | Gen33 |
| 103 | Gen34 |
| 104 | Gen35 |
| 105 | Gen36 |
| 106 | Gen37 |
| 107 | Gen38 |
| 108 | Gen39 |
| 109 | Gen40 |
| 110 | Gen41 |
| 111 | Gen42 |
| 112 | Gen43 |
| 113 | Gen44 |
| 114 | Gen45 |
| 115 | Gen46 |
| 116 | Gen47 |
| 117 | Gen48 |
| 118 | Gen49 |
| 119 | Gen50 |
| 120 | Gen51 |
| 121 | Gen52 |
| 122 | Gen53 |
| 123 | Gen54 |
| 124 | Gen55 |
| 125 | Gen56 |
| 126 | Gen57 |
| 127 | Gen58 |
| 128 | Gen59 |
| 129 | Gen60 |
| 130 | Gen61 |
| 131 | Gen62 |
| 132 | Gen63 |
| 133 | Gen64 |
| 134 | Gen65 |
| 135 | TD\_S |
| 136 | PIGD\_S |
| 137 | morph\_volume |
| 138 | morph\_volume |
| 139 | morph\_volume |
| 140 | morph\_volume |
| 141 | morph\_vol\_approx |
| 142 | morph\_vol\_approx |
| 143 | morph\_vol\_approx |
| 144 | morph\_vol\_approx |
| 145 | morph\_area\_mesh |
| 146 | morph\_area\_mesh |
| 147 | morph\_area\_mesh |
| 148 | morph\_area\_mesh |
| 149 | morph\_av |
| 150 | morph\_av |
| 151 | morph\_av |
| 152 | morph\_av |
| 153 | morph\_comp\_1 |
| 154 | morph\_comp\_1 |
| 155 | morph\_comp\_1 |
| 156 | morph\_comp\_1 |
| 157 | morph\_comp\_2 |
| 158 | morph\_comp\_2 |
| 159 | morph\_comp\_2 |
| 160 | morph\_comp\_2 |
| 161 | morph\_sph\_dispr |
| 162 | morph\_sph\_dispr |
| 163 | morph\_sph\_dispr |
| 164 | morph\_sph\_dispr |
| 165 | morph\_sphericity |
| 166 | morph\_sphericity |
| 167 | morph\_sphericity |
| 168 | morph\_sphericity |
| 169 | morph\_asphericity |
| 170 | morph\_asphericity |
| 171 | morph\_asphericity |
| 172 | morph\_asphericity |
| 173 | morph\_com |
| 174 | morph\_com |
| 175 | morph\_com |
| 176 | morph\_com |
| 177 | morph\_diam |
| 178 | morph\_diam |
| 179 | morph\_diam |
| 180 | morph\_diam |
| 181 | morph\_pca\_maj\_axis |
| 182 | morph\_pca\_maj\_axis |
| 183 | morph\_pca\_maj\_axis |
| 184 | morph\_pca\_maj\_axis |
| 185 | morph\_pca\_min\_axis |
| 186 | morph\_pca\_min\_axis |
| 187 | morph\_pca\_min\_axis |
| 188 | morph\_pca\_min\_axis |
| 189 | morph\_pca\_least\_axis |
| 190 | morph\_pca\_least\_axis |
| 191 | morph\_pca\_least\_axis |
| 192 | morph\_pca\_least\_axis |
| 193 | morph\_pca\_elongation |
| 194 | morph\_pca\_elongation |
| 195 | morph\_pca\_elongation |
| 196 | morph\_pca\_elongation |
| 197 | morph\_pca\_flatness |
| 198 | morph\_pca\_flatness |
| 199 | morph\_pca\_flatness |
| 200 | morph\_pca\_flatness |
| 201 | morph\_vol\_dens\_aabb |
| 202 | morph\_vol\_dens\_aabb |
| 203 | morph\_vol\_dens\_aabb |
| 204 | morph\_vol\_dens\_aabb |
| 205 | morph\_area\_dens\_aabb |
| 206 | morph\_area\_dens\_aabb |
| 207 | morph\_area\_dens\_aabb |
| 208 | morph\_area\_dens\_aabb |
| 209 | morph\_vol\_dens\_ombb |
| 210 | morph\_vol\_dens\_ombb |
| 211 | morph\_vol\_dens\_ombb |
| 212 | morph\_vol\_dens\_ombb |
| 213 | morph\_area\_dens\_ombb |
| 214 | morph\_area\_dens\_ombb |
| 215 | morph\_area\_dens\_ombb |
| 216 | morph\_area\_dens\_ombb |
| 217 | morph\_vol\_dens\_aee |
| 218 | morph\_vol\_dens\_aee |
| 219 | morph\_vol\_dens\_aee |
| 220 | morph\_vol\_dens\_aee |
| 221 | morph\_area\_dens\_aee |
| 222 | morph\_area\_dens\_aee |
| 223 | morph\_area\_dens\_aee |
| 224 | morph\_area\_dens\_aee |
| 225 | morph\_vol\_dens\_mvee |
| 226 | morph\_vol\_dens\_mvee |
| 227 | morph\_vol\_dens\_mvee |
| 228 | morph\_vol\_dens\_mvee |
| 229 | morph\_area\_dens\_mvee |
| 230 | morph\_area\_dens\_mvee |
| 231 | morph\_area\_dens\_mvee |
| 232 | morph\_area\_dens\_mvee |
| 233 | morph\_vol\_dens\_conv\_hull |
| 234 | morph\_vol\_dens\_conv\_hull |
| 235 | morph\_vol\_dens\_conv\_hull |
| 236 | morph\_vol\_dens\_conv\_hull |
| 237 | morph\_area\_dens\_conv\_hull |
| 238 | morph\_area\_dens\_conv\_hull |
| 239 | morph\_area\_dens\_conv\_hull |
| 240 | morph\_area\_dens\_conv\_hull |
| 241 | morph\_integ\_int |
| 242 | morph\_integ\_int |
| 243 | morph\_integ\_int |
| 244 | morph\_integ\_int |
| 245 | morph\_moran\_i |
| 246 | morph\_moran\_i |
| 247 | morph\_moran\_i |
| 248 | morph\_moran\_i |
| 249 | morph\_geary\_c |
| 250 | morph\_geary\_c |
| 251 | morph\_geary\_c |
| 252 | morph\_geary\_c |
| 253 | loc\_peak\_loc |
| 254 | loc\_peak\_loc |
| 255 | loc\_peak\_loc |
| 256 | loc\_peak\_loc |
| 257 | loc\_peak\_glob |
| 258 | loc\_peak\_glob |
| 259 | loc\_peak\_glob |
| 260 | loc\_peak\_glob |
| 261 | stat\_mean |
| 262 | stat\_mean |
| 263 | stat\_mean |
| 264 | stat\_mean |
| 265 | stat\_var |
| 266 | stat\_var |
| 267 | stat\_var |
| 268 | stat\_var |
| 269 | stat\_skew |
| 270 | stat\_skew |
| 271 | stat\_skew |
| 272 | stat\_skew |
| 273 | stat\_kurt |
| 274 | stat\_kurt |
| 275 | stat\_kurt |
| 276 | stat\_kurt |
| 277 | stat\_median |
| 278 | stat\_median |
| 279 | stat\_median |
| 280 | stat\_median |
| 281 | stat\_min |
| 282 | stat\_min |
| 283 | stat\_min |
| 284 | stat\_min |
| 285 | stat\_p10 |
| 286 | stat\_p10 |
| 287 | stat\_p10 |
| 288 | stat\_p10 |
| 289 | stat\_p90 |
| 290 | stat\_p90 |
| 291 | stat\_p90 |
| 292 | stat\_p90 |
| 293 | stat\_max |
| 294 | stat\_max |
| 295 | stat\_max |
| 296 | stat\_max |
| 297 | stat\_iqr |
| 298 | stat\_iqr |
| 299 | stat\_iqr |
| 300 | stat\_iqr |
| 301 | stat\_range |
| 302 | stat\_range |
| 303 | stat\_range |
| 304 | stat\_range |
| 305 | stat\_mad |
| 306 | stat\_mad |
| 307 | stat\_mad |
| 308 | stat\_mad |
| 309 | stat\_rmad |
| 310 | stat\_rmad |
| 311 | stat\_rmad |
| 312 | stat\_rmad |
| 313 | stat\_medad |
| 314 | stat\_medad |
| 315 | stat\_medad |
| 316 | stat\_medad |
| 317 | stat\_cov |
| 318 | stat\_cov |
| 319 | stat\_cov |
| 320 | stat\_cov |
| 321 | stat\_qcod |
| 322 | stat\_qcod |
| 323 | stat\_qcod |
| 324 | stat\_qcod |
| 325 | stat\_energy |
| 326 | stat\_energy |
| 327 | stat\_energy |
| 328 | stat\_energy |
| 329 | stat\_rms |
| 330 | stat\_rms |
| 331 | stat\_rms |
| 332 | stat\_rms |
| 333 | ih\_mean |
| 334 | ih\_mean |
| 335 | ih\_mean |
| 336 | ih\_mean |
| 337 | ih\_var |
| 338 | ih\_var |
| 339 | ih\_var |
| 340 | ih\_var |
| 341 | ih\_skew |
| 342 | ih\_skew |
| 343 | ih\_skew |
| 344 | ih\_skew |
| 345 | ih\_kurt |
| 346 | ih\_kurt |
| 347 | ih\_kurt |
| 348 | ih\_kurt |
| 349 | ih\_median |
| 350 | ih\_median |
| 351 | ih\_median |
| 352 | ih\_median |
| 353 | ih\_p10 |
| 354 | ih\_p10 |
| 355 | ih\_p10 |
| 356 | ih\_p10 |
| 357 | ih\_p90 |
| 358 | ih\_p90 |
| 359 | ih\_p90 |
| 360 | ih\_p90 |
| 361 | ih\_mode |
| 362 | ih\_mode |
| 363 | ih\_mode |
| 364 | ih\_mode |
| 365 | ih\_iqr |
| 366 | ih\_iqr |
| 367 | ih\_iqr |
| 368 | ih\_iqr |
| 369 | ih\_mad |
| 370 | ih\_mad |
| 371 | ih\_mad |
| 372 | ih\_mad |
| 373 | ih\_rmad |
| 374 | ih\_rmad |
| 375 | ih\_rmad |
| 376 | ih\_rmad |
| 377 | ih\_medad |
| 378 | ih\_medad |
| 379 | ih\_medad |
| 380 | ih\_medad |
| 381 | ih\_cov |
| 382 | ih\_cov |
| 383 | ih\_cov |
| 384 | ih\_cov |
| 385 | ih\_qcod |
| 386 | ih\_qcod |
| 387 | ih\_qcod |
| 388 | ih\_qcod |
| 389 | ih\_entropy |
| 390 | ih\_entropy |
| 391 | ih\_entropy |
| 392 | ih\_entropy |
| 393 | ih\_uniformity |
| 394 | ih\_uniformity |
| 395 | ih\_uniformity |
| 396 | ih\_uniformity |
| 397 | ih\_max\_grad |
| 398 | ih\_max\_grad |
| 399 | ih\_max\_grad |
| 400 | ih\_max\_grad |
| 401 | ih\_max\_grad\_g |
| 402 | ih\_max\_grad\_g |
| 403 | ih\_max\_grad\_g |
| 404 | ih\_max\_grad\_g |
| 405 | ih\_min\_grad |
| 406 | ih\_min\_grad |
| 407 | ih\_min\_grad |
| 408 | ih\_min\_grad |
| 409 | ih\_min\_grad\_g |
| 410 | ih\_min\_grad\_g |
| 411 | ih\_min\_grad\_g |
| 412 | ih\_min\_grad\_g |
| 413 | ivh\_v10 |
| 414 | ivh\_v10 |
| 415 | ivh\_v10 |
| 416 | ivh\_v10 |
| 417 | ivh\_v90 |
| 418 | ivh\_v90 |
| 419 | ivh\_v90 |
| 420 | ivh\_v90 |
| 421 | ivh\_i10 |
| 422 | ivh\_i10 |
| 423 | ivh\_i10 |
| 424 | ivh\_i10 |
| 425 | ivh\_i90 |
| 426 | ivh\_i90 |
| 427 | ivh\_i90 |
| 428 | ivh\_i90 |
| 429 | ivh\_diff\_v10\_v90 |
| 430 | ivh\_diff\_v10\_v90 |
| 431 | ivh\_diff\_v10\_v90 |
| 432 | ivh\_diff\_v10\_v90 |
| 433 | ivh\_diff\_i10\_i90 |
| 434 | ivh\_diff\_i10\_i90 |
| 435 | ivh\_diff\_i10\_i90 |
| 436 | ivh\_diff\_i10\_i90 |
| 437 | ivh\_auc |
| 438 | ivh\_auc |
| 439 | ivh\_auc |
| 440 | ivh\_auc |
| 441 | cm\_joint\_max\_3D\_avg |
| 442 | cm\_joint\_max\_3D\_avg |
| 443 | cm\_joint\_max\_3D\_avg |
| 444 | cm\_joint\_max\_3D\_avg |
| 445 | cm\_joint\_avg\_3D\_avg |
| 446 | cm\_joint\_avg\_3D\_avg |
| 447 | cm\_joint\_avg\_3D\_avg |
| 448 | cm\_joint\_avg\_3D\_avg |
| 449 | cm\_joint\_var\_3D\_avg |
| 450 | cm\_joint\_var\_3D\_avg |
| 451 | cm\_joint\_var\_3D\_avg |
| 452 | cm\_joint\_var\_3D\_avg |
| 453 | cm\_joint\_entr\_3D\_avg |
| 454 | cm\_joint\_entr\_3D\_avg |
| 455 | cm\_joint\_entr\_3D\_avg |
| 456 | cm\_joint\_entr\_3D\_avg |
| 457 | cm\_diff\_avg\_3D\_avg |
| 458 | cm\_diff\_avg\_3D\_avg |
| 459 | cm\_diff\_avg\_3D\_avg |
| 460 | cm\_diff\_avg\_3D\_avg |
| 461 | cm\_diff\_var\_3D\_avg |
| 462 | cm\_diff\_var\_3D\_avg |
| 463 | cm\_diff\_var\_3D\_avg |
| 464 | cm\_diff\_var\_3D\_avg |
| 465 | cm\_diff\_entr\_3D\_avg |
| 466 | cm\_diff\_entr\_3D\_avg |
| 467 | cm\_diff\_entr\_3D\_avg |
| 468 | cm\_diff\_entr\_3D\_avg |
| 469 | cm\_sum\_avg\_3D\_avg |
| 470 | cm\_sum\_avg\_3D\_avg |
| 471 | cm\_sum\_avg\_3D\_avg |
| 472 | cm\_sum\_avg\_3D\_avg |
| 473 | cm\_sum\_var\_3D\_avg |
| 474 | cm\_sum\_var\_3D\_avg |
| 475 | cm\_sum\_var\_3D\_avg |
| 476 | cm\_sum\_var\_3D\_avg |
| 477 | cm\_sum\_entr\_3D\_avg |
| 478 | cm\_sum\_entr\_3D\_avg |
| 479 | cm\_sum\_entr\_3D\_avg |
| 480 | cm\_sum\_entr\_3D\_avg |
| 481 | cm\_energy\_3D\_avg |
| 482 | cm\_energy\_3D\_avg |
| 483 | cm\_energy\_3D\_avg |
| 484 | cm\_energy\_3D\_avg |
| 485 | cm\_contrast\_3D\_avg |
| 486 | cm\_contrast\_3D\_avg |
| 487 | cm\_contrast\_3D\_avg |
| 488 | cm\_contrast\_3D\_avg |
| 489 | cm\_dissimilarity\_3D\_avg |
| 490 | cm\_dissimilarity\_3D\_avg |
| 491 | cm\_dissimilarity\_3D\_avg |
| 492 | cm\_dissimilarity\_3D\_avg |
| 493 | cm\_inv\_diff\_3D\_avg |
| 494 | cm\_inv\_diff\_3D\_avg |
| 495 | cm\_inv\_diff\_3D\_avg |
| 496 | cm\_inv\_diff\_3D\_avg |
| 497 | cm\_inv\_diff\_norm\_3D\_avg |
| 498 | cm\_inv\_diff\_norm\_3D\_avg |
| 499 | cm\_inv\_diff\_norm\_3D\_avg |
| 500 | cm\_inv\_diff\_norm\_3D\_avg |
| 501 | cm\_inv\_diff\_mom\_3D\_avg |
| 502 | cm\_inv\_diff\_mom\_3D\_avg |
| 503 | cm\_inv\_diff\_mom\_3D\_avg |
| 504 | cm\_inv\_diff\_mom\_3D\_avg |
| 505 | cm\_inv\_diff\_mom\_norm\_3D\_avg |
| 506 | cm\_inv\_diff\_mom\_norm\_3D\_avg |
| 507 | cm\_inv\_diff\_mom\_norm\_3D\_avg |
| 508 | cm\_inv\_diff\_mom\_norm\_3D\_avg |
| 509 | cm\_inv\_var\_3D\_avg |
| 510 | cm\_inv\_var\_3D\_avg |
| 511 | cm\_inv\_var\_3D\_avg |
| 512 | cm\_inv\_var\_3D\_avg |
| 513 | cm\_corr\_3D\_avg |
| 514 | cm\_corr\_3D\_avg |
| 515 | cm\_corr\_3D\_avg |
| 516 | cm\_corr\_3D\_avg |
| 517 | cm\_auto\_corr\_3D\_avg |
| 518 | cm\_auto\_corr\_3D\_avg |
| 519 | cm\_auto\_corr\_3D\_avg |
| 520 | cm\_auto\_corr\_3D\_avg |
| 521 | cm\_clust\_tend\_3D\_avg |
| 522 | cm\_clust\_tend\_3D\_avg |
| 523 | cm\_clust\_tend\_3D\_avg |
| 524 | cm\_clust\_tend\_3D\_avg |
| 525 | cm\_clust\_shade\_3D\_avg |
| 526 | cm\_clust\_shade\_3D\_avg |
| 527 | cm\_clust\_shade\_3D\_avg |
| 528 | cm\_clust\_shade\_3D\_avg |
| 529 | cm\_clust\_prom\_3D\_avg |
| 530 | cm\_clust\_prom\_3D\_avg |
| 531 | cm\_clust\_prom\_3D\_avg |
| 532 | cm\_clust\_prom\_3D\_avg |
| 533 | cm\_info\_corr1\_3D\_avg |
| 534 | cm\_info\_corr1\_3D\_avg |
| 535 | cm\_info\_corr1\_3D\_avg |
| 536 | cm\_info\_corr1\_3D\_avg |
| 537 | cm\_info\_corr2\_3D\_avg |
| 538 | cm\_info\_corr2\_3D\_avg |
| 539 | cm\_info\_corr2\_3D\_avg |
| 540 | cm\_info\_corr2\_3D\_avg |
| 541 | cm\_joint\_max\_3D\_comb |
| 542 | cm\_joint\_max\_3D\_comb |
| 543 | cm\_joint\_max\_3D\_comb |
| 544 | cm\_joint\_max\_3D\_comb |
| 545 | cm\_joint\_avg\_3D\_comb |
| 546 | cm\_joint\_avg\_3D\_comb |
| 547 | cm\_joint\_avg\_3D\_comb |
| 548 | cm\_joint\_avg\_3D\_comb |
| 549 | cm\_joint\_var\_3D\_comb |
| 550 | cm\_joint\_var\_3D\_comb |
| 551 | cm\_joint\_var\_3D\_comb |
| 552 | cm\_joint\_var\_3D\_comb |
| 553 | cm\_joint\_entr\_3D\_comb |
| 554 | cm\_joint\_entr\_3D\_comb |
| 555 | cm\_joint\_entr\_3D\_comb |
| 556 | cm\_joint\_entr\_3D\_comb |
| 557 | cm\_diff\_avg\_3D\_comb |
| 558 | cm\_diff\_avg\_3D\_comb |
| 559 | cm\_diff\_avg\_3D\_comb |
| 560 | cm\_diff\_avg\_3D\_comb |
| 561 | cm\_diff\_var\_3D\_comb |
| 562 | cm\_diff\_var\_3D\_comb |
| 563 | cm\_diff\_var\_3D\_comb |
| 564 | cm\_diff\_var\_3D\_comb |
| 565 | cm\_diff\_entr\_3D\_comb |
| 566 | cm\_diff\_entr\_3D\_comb |
| 567 | cm\_diff\_entr\_3D\_comb |
| 568 | cm\_diff\_entr\_3D\_comb |
| 569 | cm\_sum\_avg\_3D\_comb |
| 570 | cm\_sum\_avg\_3D\_comb |
| 571 | cm\_sum\_avg\_3D\_comb |
| 572 | cm\_sum\_avg\_3D\_comb |
| 573 | cm\_sum\_var\_3D\_comb |
| 574 | cm\_sum\_var\_3D\_comb |
| 575 | cm\_sum\_var\_3D\_comb |
| 576 | cm\_sum\_var\_3D\_comb |
| 577 | cm\_sum\_entr\_3D\_comb |
| 578 | cm\_sum\_entr\_3D\_comb |
| 579 | cm\_sum\_entr\_3D\_comb |
| 580 | cm\_sum\_entr\_3D\_comb |
| 581 | cm\_energy\_3D\_comb |
| 582 | cm\_energy\_3D\_comb |
| 583 | cm\_energy\_3D\_comb |
| 584 | cm\_energy\_3D\_comb |
| 585 | cm\_contrast\_3D\_comb |
| 586 | cm\_contrast\_3D\_comb |
| 587 | cm\_contrast\_3D\_comb |
| 588 | cm\_contrast\_3D\_comb |
| 589 | cm\_dissimilarity\_3D\_comb |
| 590 | cm\_dissimilarity\_3D\_comb |
| 591 | cm\_dissimilarity\_3D\_comb |
| 592 | cm\_dissimilarity\_3D\_comb |
| 593 | cm\_inv\_diff\_3D\_comb |
| 594 | cm\_inv\_diff\_3D\_comb |
| 595 | cm\_inv\_diff\_3D\_comb |
| 596 | cm\_inv\_diff\_3D\_comb |
| 597 | cm\_inv\_diff\_norm\_3D\_comb |
| 598 | cm\_inv\_diff\_norm\_3D\_comb |
| 599 | cm\_inv\_diff\_norm\_3D\_comb |
| 600 | cm\_inv\_diff\_norm\_3D\_comb |
| 601 | cm\_inv\_diff\_mom\_3D\_comb |
| 602 | cm\_inv\_diff\_mom\_3D\_comb |
| 603 | cm\_inv\_diff\_mom\_3D\_comb |
| 604 | cm\_inv\_diff\_mom\_3D\_comb |
| 605 | cm\_inv\_diff\_mom\_norm\_3D\_comb |
| 606 | cm\_inv\_diff\_mom\_norm\_3D\_comb |
| 607 | cm\_inv\_diff\_mom\_norm\_3D\_comb |
| 608 | cm\_inv\_diff\_mom\_norm\_3D\_comb |
| 609 | cm\_inv\_var\_3D\_comb |
| 610 | cm\_inv\_var\_3D\_comb |
| 611 | cm\_inv\_var\_3D\_comb |
| 612 | cm\_inv\_var\_3D\_comb |
| 613 | cm\_corr\_3D\_comb |
| 614 | cm\_corr\_3D\_comb |
| 615 | cm\_corr\_3D\_comb |
| 616 | cm\_corr\_3D\_comb |
| 617 | cm\_auto\_corr\_3D\_comb |
| 618 | cm\_auto\_corr\_3D\_comb |
| 619 | cm\_auto\_corr\_3D\_comb |
| 620 | cm\_auto\_corr\_3D\_comb |
| 621 | cm\_clust\_tend\_3D\_comb |
| 622 | cm\_clust\_tend\_3D\_comb |
| 623 | cm\_clust\_tend\_3D\_comb |
| 624 | cm\_clust\_tend\_3D\_comb |
| 625 | cm\_clust\_shade\_3D\_comb |
| 626 | cm\_clust\_shade\_3D\_comb |
| 627 | cm\_clust\_shade\_3D\_comb |
| 628 | cm\_clust\_shade\_3D\_comb |
| 629 | cm\_clust\_prom\_3D\_comb |
| 630 | cm\_clust\_prom\_3D\_comb |
| 631 | cm\_clust\_prom\_3D\_comb |
| 632 | cm\_clust\_prom\_3D\_comb |
| 633 | cm\_info\_corr1\_3D\_comb |
| 634 | cm\_info\_corr1\_3D\_comb |
| 635 | cm\_info\_corr1\_3D\_comb |
| 636 | cm\_info\_corr1\_3D\_comb |
| 637 | cm\_info\_corr2\_3D\_comb |
| 638 | cm\_info\_corr2\_3D\_comb |
| 639 | cm\_info\_corr2\_3D\_comb |
| 640 | cm\_info\_corr2\_3D\_comb |
| 641 | rlm\_sre\_3D\_avg |
| 642 | rlm\_sre\_3D\_avg |
| 643 | rlm\_sre\_3D\_avg |
| 644 | rlm\_sre\_3D\_avg |
| 645 | rlm\_lre\_3D\_avg |
| 646 | rlm\_lre\_3D\_avg |
| 647 | rlm\_lre\_3D\_avg |
| 648 | rlm\_lre\_3D\_avg |
| 649 | rlm\_lgre\_3D\_avg |
| 650 | rlm\_lgre\_3D\_avg |
| 651 | rlm\_lgre\_3D\_avg |
| 652 | rlm\_lgre\_3D\_avg |
| 653 | rlm\_hgre\_3D\_avg |
| 654 | rlm\_hgre\_3D\_avg |
| 655 | rlm\_hgre\_3D\_avg |
| 656 | rlm\_hgre\_3D\_avg |
| 657 | rlm\_srlge\_3D\_avg |
| 658 | rlm\_srlge\_3D\_avg |
| 659 | rlm\_srlge\_3D\_avg |
| 660 | rlm\_srlge\_3D\_avg |
| 661 | rlm\_srhge\_3D\_avg |
| 662 | rlm\_srhge\_3D\_avg |
| 663 | rlm\_srhge\_3D\_avg |
| 664 | rlm\_srhge\_3D\_avg |
| 665 | rlm\_lrlge\_3D\_avg |
| 666 | rlm\_lrlge\_3D\_avg |
| 667 | rlm\_lrlge\_3D\_avg |
| 668 | rlm\_lrlge\_3D\_avg |
| 669 | rlm\_lrhge\_3D\_avg |
| 670 | rlm\_lrhge\_3D\_avg |
| 671 | rlm\_lrhge\_3D\_avg |
| 672 | rlm\_lrhge\_3D\_avg |
| 673 | rlm\_glnu\_3D\_avg |
| 674 | rlm\_glnu\_3D\_avg |
| 675 | rlm\_glnu\_3D\_avg |
| 676 | rlm\_glnu\_3D\_avg |
| 677 | rlm\_glnu\_norm\_3D\_avg |
| 678 | rlm\_glnu\_norm\_3D\_avg |
| 679 | rlm\_glnu\_norm\_3D\_avg |
| 680 | rlm\_glnu\_norm\_3D\_avg |
| 681 | rlm\_rlnu\_3D\_avg |
| 682 | rlm\_rlnu\_3D\_avg |
| 683 | rlm\_rlnu\_3D\_avg |
| 684 | rlm\_rlnu\_3D\_avg |
| 685 | rlm\_rlnu\_norm\_3D\_avg |
| 686 | rlm\_rlnu\_norm\_3D\_avg |
| 687 | rlm\_rlnu\_norm\_3D\_avg |
| 688 | rlm\_rlnu\_norm\_3D\_avg |
| 689 | rlm\_r\_perc\_3D\_avg |
| 690 | rlm\_r\_perc\_3D\_avg |
| 691 | rlm\_r\_perc\_3D\_avg |
| 692 | rlm\_r\_perc\_3D\_avg |
| 693 | rlm\_gl\_var\_3D\_avg |
| 694 | rlm\_gl\_var\_3D\_avg |
| 695 | rlm\_gl\_var\_3D\_avg |
| 696 | rlm\_gl\_var\_3D\_avg |
| 697 | rlm\_rl\_var\_3D\_avg |
| 698 | rlm\_rl\_var\_3D\_avg |
| 699 | rlm\_rl\_var\_3D\_avg |
| 700 | rlm\_rl\_var\_3D\_avg |
| 701 | rlm\_rl\_entr\_3D\_avg |
| 702 | rlm\_rl\_entr\_3D\_avg |
| 703 | rlm\_rl\_entr\_3D\_avg |
| 704 | rlm\_rl\_entr\_3D\_avg |
| 705 | rlm\_sre\_3D\_comb |
| 706 | rlm\_sre\_3D\_comb |
| 707 | rlm\_sre\_3D\_comb |
| 708 | rlm\_sre\_3D\_comb |
| 709 | rlm\_lre\_3D\_comb |
| 710 | rlm\_lre\_3D\_comb |
| 711 | rlm\_lre\_3D\_comb |
| 712 | rlm\_lre\_3D\_comb |
| 713 | rlm\_lgre\_3D\_comb |
| 714 | rlm\_lgre\_3D\_comb |
| 715 | rlm\_lgre\_3D\_comb |
| 716 | rlm\_lgre\_3D\_comb |
| 717 | rlm\_hgre\_3D\_comb |
| 718 | rlm\_hgre\_3D\_comb |
| 719 | rlm\_hgre\_3D\_comb |
| 720 | rlm\_hgre\_3D\_comb |
| 721 | rlm\_srlge\_3D\_comb |
| 722 | rlm\_srlge\_3D\_comb |
| 723 | rlm\_srlge\_3D\_comb |
| 724 | rlm\_srlge\_3D\_comb |
| 725 | rlm\_srhge\_3D\_comb |
| 726 | rlm\_srhge\_3D\_comb |
| 727 | rlm\_srhge\_3D\_comb |
| 728 | rlm\_srhge\_3D\_comb |
| 729 | rlm\_lrlge\_3D\_comb |
| 730 | rlm\_lrlge\_3D\_comb |
| 731 | rlm\_lrlge\_3D\_comb |
| 732 | rlm\_lrlge\_3D\_comb |
| 733 | rlm\_lrhge\_3D\_comb |
| 734 | rlm\_lrhge\_3D\_comb |
| 735 | rlm\_lrhge\_3D\_comb |
| 736 | rlm\_lrhge\_3D\_comb |
| 737 | rlm\_glnu\_3D\_comb |
| 738 | rlm\_glnu\_3D\_comb |
| 739 | rlm\_glnu\_3D\_comb |
| 740 | rlm\_glnu\_3D\_comb |
| 741 | rlm\_glnu\_norm\_3D\_comb |
| 742 | rlm\_glnu\_norm\_3D\_comb |
| 743 | rlm\_glnu\_norm\_3D\_comb |
| 744 | rlm\_glnu\_norm\_3D\_comb |
| 745 | rlm\_rlnu\_3D\_comb |
| 746 | rlm\_rlnu\_3D\_comb |
| 747 | rlm\_rlnu\_3D\_comb |
| 748 | rlm\_rlnu\_3D\_comb |
| 749 | rlm\_rlnu\_norm\_3D\_comb |
| 750 | rlm\_rlnu\_norm\_3D\_comb |
| 751 | rlm\_rlnu\_norm\_3D\_comb |
| 752 | rlm\_rlnu\_norm\_3D\_comb |
| 753 | rlm\_r\_perc\_3D\_comb |
| 754 | rlm\_r\_perc\_3D\_comb |
| 755 | rlm\_r\_perc\_3D\_comb |
| 756 | rlm\_r\_perc\_3D\_comb |
| 757 | rlm\_gl\_var\_3D\_comb |
| 758 | rlm\_gl\_var\_3D\_comb |
| 759 | rlm\_gl\_var\_3D\_comb |
| 760 | rlm\_gl\_var\_3D\_comb |
| 761 | rlm\_rl\_var\_3D\_comb |
| 762 | rlm\_rl\_var\_3D\_comb |
| 763 | rlm\_rl\_var\_3D\_comb |
| 764 | rlm\_rl\_var\_3D\_comb |
| 765 | rlm\_rl\_entr\_3D\_comb |
| 766 | rlm\_rl\_entr\_3D\_comb |
| 767 | rlm\_rl\_entr\_3D\_comb |
| 768 | rlm\_rl\_entr\_3D\_comb |
| 769 | szm\_sze\_3D |
| 770 | szm\_sze\_3D |
| 771 | szm\_sze\_3D |
| 772 | szm\_sze\_3D |
| 773 | szm\_lze\_3D |
| 774 | szm\_lze\_3D |
| 775 | szm\_lze\_3D |
| 776 | szm\_lze\_3D |
| 777 | szm\_lgze\_3D |
| 778 | szm\_lgze\_3D |
| 779 | szm\_lgze\_3D |
| 780 | szm\_lgze\_3D |
| 781 | szm\_hgze\_3D |
| 782 | szm\_hgze\_3D |
| 783 | szm\_hgze\_3D |
| 784 | szm\_hgze\_3D |
| 785 | szm\_szlge\_3D |
| 786 | szm\_szlge\_3D |
| 787 | szm\_szlge\_3D |
| 788 | szm\_szlge\_3D |
| 789 | szm\_szhge\_3D |
| 790 | szm\_szhge\_3D |
| 791 | szm\_szhge\_3D |
| 792 | szm\_szhge\_3D |
| 793 | szm\_lzlge\_3D |
| 794 | szm\_lzlge\_3D |
| 795 | szm\_lzlge\_3D |
| 796 | szm\_lzlge\_3D |
| 797 | szm\_lzhge\_3D |
| 798 | szm\_lzhge\_3D |
| 799 | szm\_lzhge\_3D |
| 800 | szm\_lzhge\_3D |
| 801 | szm\_glnu\_3D |
| 802 | szm\_glnu\_3D |
| 803 | szm\_glnu\_3D |
| 804 | szm\_glnu\_3D |
| 805 | szm\_glnu\_norm\_3D |
| 806 | szm\_glnu\_norm\_3D |
| 807 | szm\_glnu\_norm\_3D |
| 808 | szm\_glnu\_norm\_3D |
| 809 | szm\_zsnu\_3D |
| 810 | szm\_zsnu\_3D |
| 811 | szm\_zsnu\_3D |
| 812 | szm\_zsnu\_3D |
| 813 | szm\_zsnu\_norm\_3D |
| 814 | szm\_zsnu\_norm\_3D |
| 815 | szm\_zsnu\_norm\_3D |
| 816 | szm\_zsnu\_norm\_3D |
| 817 | szm\_z\_perc\_3D |
| 818 | szm\_z\_perc\_3D |
| 819 | szm\_z\_perc\_3D |
| 820 | szm\_z\_perc\_3D |
| 821 | szm\_gl\_var\_3D |
| 822 | szm\_gl\_var\_3D |
| 823 | szm\_gl\_var\_3D |
| 824 | szm\_gl\_var\_3D |
| 825 | szm\_zs\_var\_3D |
| 826 | szm\_zs\_var\_3D |
| 827 | szm\_zs\_var\_3D |
| 828 | szm\_zs\_var\_3D |
| 829 | szm\_zs\_entr\_3D |
| 830 | szm\_zs\_entr\_3D |
| 831 | szm\_zs\_entr\_3D |
| 832 | szm\_zs\_entr\_3D |
| 833 | dzm\_sde\_3D |
| 834 | dzm\_sde\_3D |
| 835 | dzm\_sde\_3D |
| 836 | dzm\_sde\_3D |
| 837 | dzm\_lde\_3D |
| 838 | dzm\_lde\_3D |
| 839 | dzm\_lde\_3D |
| 840 | dzm\_lde\_3D |
| 841 | dzm\_lgze\_3D |
| 842 | dzm\_lgze\_3D |
| 843 | dzm\_lgze\_3D |
| 844 | dzm\_lgze\_3D |
| 845 | dzm\_hgze\_3D |
| 846 | dzm\_hgze\_3D |
| 847 | dzm\_hgze\_3D |
| 848 | dzm\_hgze\_3D |
| 849 | dzm\_sdlge\_3D |
| 850 | dzm\_sdlge\_3D |
| 851 | dzm\_sdlge\_3D |
| 852 | dzm\_sdlge\_3D |
| 853 | dzm\_sdhge\_3D |
| 854 | dzm\_sdhge\_3D |
| 855 | dzm\_sdhge\_3D |
| 856 | dzm\_sdhge\_3D |
| 857 | dzm\_ldlge\_3D |
| 858 | dzm\_ldlge\_3D |
| 859 | dzm\_ldlge\_3D |
| 860 | dzm\_ldlge\_3D |
| 861 | dzm\_ldhge\_3D |
| 862 | dzm\_ldhge\_3D |
| 863 | dzm\_ldhge\_3D |
| 864 | dzm\_ldhge\_3D |
| 865 | dzm\_glnu\_3D |
| 866 | dzm\_glnu\_3D |
| 867 | dzm\_glnu\_3D |
| 868 | dzm\_glnu\_3D |
| 869 | dzm\_glnu\_norm\_3D |
| 870 | dzm\_glnu\_norm\_3D |
| 871 | dzm\_glnu\_norm\_3D |
| 872 | dzm\_glnu\_norm\_3D |
| 873 | dzm\_zdnu\_3D |
| 874 | dzm\_zdnu\_3D |
| 875 | dzm\_zdnu\_3D |
| 876 | dzm\_zdnu\_3D |
| 877 | dzm\_zdnu\_norm\_3D |
| 878 | dzm\_zdnu\_norm\_3D |
| 879 | dzm\_zdnu\_norm\_3D |
| 880 | dzm\_zdnu\_norm\_3D |
| 881 | dzm\_z\_perc\_3D |
| 882 | dzm\_z\_perc\_3D |
| 883 | dzm\_z\_perc\_3D |
| 884 | dzm\_z\_perc\_3D |
| 885 | dzm\_gl\_var\_3D |
| 886 | dzm\_gl\_var\_3D |
| 887 | dzm\_gl\_var\_3D |
| 888 | dzm\_gl\_var\_3D |
| 889 | dzm\_zd\_var\_3D |
| 890 | dzm\_zd\_var\_3D |
| 891 | dzm\_zd\_var\_3D |
| 892 | dzm\_zd\_var\_3D |
| 893 | dzm\_zd\_entr\_3D |
| 894 | dzm\_zd\_entr\_3D |
| 895 | dzm\_zd\_entr\_3D |
| 896 | dzm\_zd\_entr\_3D |
| 897 | ngt\_coarseness\_3D |
| 898 | ngt\_coarseness\_3D |
| 899 | ngt\_coarseness\_3D |
| 900 | ngt\_coarseness\_3D |
| 901 | ngt\_contrast\_3D |
| 902 | ngt\_contrast\_3D |
| 903 | ngt\_contrast\_3D |
| 904 | ngt\_contrast\_3D |
| 905 | ngt\_busyness\_3D |
| 906 | ngt\_busyness\_3D |
| 907 | ngt\_busyness\_3D |
| 908 | ngt\_busyness\_3D |
| 909 | ngt\_complexity\_3D |
| 910 | ngt\_complexity\_3D |
| 911 | ngt\_complexity\_3D |
| 912 | ngt\_complexity\_3D |
| 913 | ngt\_strength\_3D |
| 914 | ngt\_strength\_3D |
| 915 | ngt\_strength\_3D |
| 916 | ngt\_strength\_3D |
| 917 | ngl\_lde\_3D |
| 918 | ngl\_lde\_3D |
| 919 | ngl\_lde\_3D |
| 920 | ngl\_lde\_3D |
| 921 | ngl\_hde\_3D |
| 922 | ngl\_hde\_3D |
| 923 | ngl\_hde\_3D |
| 924 | ngl\_hde\_3D |
| 925 | ngl\_lgce\_3D |
| 926 | ngl\_lgce\_3D |
| 927 | ngl\_lgce\_3D |
| 928 | ngl\_lgce\_3D |
| 929 | ngl\_hgce\_3D |
| 930 | ngl\_hgce\_3D |
| 931 | ngl\_hgce\_3D |
| 932 | ngl\_hgce\_3D |
| 933 | ngl\_ldlge\_3D |
| 934 | ngl\_ldlge\_3D |
| 935 | ngl\_ldlge\_3D |
| 936 | ngl\_ldlge\_3D |
| 937 | ngl\_ldhge\_3D |
| 938 | ngl\_ldhge\_3D |
| 939 | ngl\_ldhge\_3D |
| 940 | ngl\_ldhge\_3D |
| 941 | ngl\_hdlge\_3D |
| 942 | ngl\_hdlge\_3D |
| 943 | ngl\_hdlge\_3D |
| 944 | ngl\_hdlge\_3D |
| 945 | ngl\_hdhge\_3D |
| 946 | ngl\_hdhge\_3D |
| 947 | ngl\_hdhge\_3D |
| 948 | ngl\_hdhge\_3D |
| 949 | ngl\_glnu\_3D |
| 950 | ngl\_glnu\_3D |
| 951 | ngl\_glnu\_3D |
| 952 | ngl\_glnu\_3D |
| 953 | ngl\_glnu\_norm\_3D |
| 954 | ngl\_glnu\_norm\_3D |
| 955 | ngl\_glnu\_norm\_3D |
| 956 | ngl\_glnu\_norm\_3D |
| 957 | ngl\_dcnu\_3D |
| 958 | ngl\_dcnu\_3D |
| 959 | ngl\_dcnu\_3D |
| 960 | ngl\_dcnu\_3D |
| 961 | ngl\_dcnu\_norm\_3D |
| 962 | ngl\_dcnu\_norm\_3D |
| 963 | ngl\_dcnu\_norm\_3D |
| 964 | ngl\_dcnu\_norm\_3D |
| 965 | ngl\_gl\_var\_3D |
| 966 | ngl\_gl\_var\_3D |
| 967 | ngl\_gl\_var\_3D |
| 968 | ngl\_gl\_var\_3D |
| 969 | ngl\_dc\_var\_3D |
| 970 | ngl\_dc\_var\_3D |
| 971 | ngl\_dc\_var\_3D |
| 972 | ngl\_dc\_var\_3D |
| 973 | ngl\_dc\_entr\_3D |
| 974 | ngl\_dc\_entr\_3D |
| 975 | ngl\_dc\_entr\_3D |
| 976 | ngl\_dc\_entr\_3D |
| 977 | ngl\_dc\_energy\_3D |
| 978 | ngl\_dc\_energy\_3D |
| 979 | ngl\_dc\_energy\_3D |
| 980 | ngl\_dc\_energy\_3D |
| 981 | Subtype |

**Table S2**. Sequential arrangements provided by different FSAs in clustering task for the original dataset

|  |  |
| --- | --- |
| **FSA** | **Sequential feature ranked by FSA** |
| **ILFS** | 409,585,545,925,973,445,952,829,786,740,676,777,953,645,693,757,689,709,753,788,713,909,649,741,677,379,765,243,605,432,759,695,701,349,277,209,505,597,397,957,557,223,497,811,485,564,613,247,275,965,915,374,724,347,912,758,169,165,173,660,694,908,281,928,13,513,146,834,967,339,266,937,370,787,157,716,652,237,944,345,551,745,835,899,878,681,338,966,789,653,273,235,717,289,245,721,665,823,887,657,879,540,294,468,929,265,661,729,725,853,732,543,781,845,309,321,668,886,822,451,933,217,669,913,673,227,575,623,375,317,733,838,737,850,325,416,509,844,780,280,395,955,521,489,285,295,842,778,541,621,268,609,433,531,589,147,279,876,469,461,493,282,441,393,378,578,337,860,971,488,501,430,945,283,475,523,264,981,569,549,573,246,287,565,284,861,797,896,941,508,222,456,473,449,183,163,171,796,775,288,980,827,773,331,601,467,769,301,457,194,443,817,167,263,561,593,705,542,839,155,286,333,650,926,858,682,714,856,159,658,431,481,906,746,188,722,206,269,923,149,555,166,942,723,934,659,970,327,202,262,463,465,530,205,267,951,164,172,141,391,852,785,849,679,231,890,895,145,666,643,947,464,332,581,306,242,310,308,976,299,244,730,699,583,316,381,914,579,707,711,630,323,329,939,936,302,795,763,415,647,851,635,278,702,687,272,259,807,871,303,675,311,315,739,191,344,691,755,634,897,972,158,417,857,651,715,809,873,751,314,312,588,943,253,307,424,348,743,276,927,536,414,924,685,377,779,843,749,384,826,544,150,608,185,563,537,230,293,291,792,255,804,868,728,784,848,940,550,373,664,298,252,794,828,386,774,300,474,522,610,510,567,460,492,841,656,836,720,261,938,257,864,865,932,747,672,520,683,974,736,637,502,667,140,440,698,336,731,614,620,772,503,762,602,204,894,462,330,898,766,922,313,798,639,494,950,139,874,752,534,472,448,182,450,830,318,901,870,806,688,708,692,756,151,500,574,622,548,572,880,776,249,539,611,335,439,831,177,799,961,793,380,674,738,584,813,274,305,810,644,969,341,893,240,867,803,547,571,376,560,592,346,907,553,825,889,710,595,816,603,453,447,471,975,383,800,594,607,203,761,636,697,892,629,529,577,625,600,525,477,615,519,802,866,591,559,511,840,495,663,727,392,187,587,684,221,812,599,832,748,855,628,619,963,514,646,554,931,528,248,499,680,935,655,459,491,719,875,372,744,382,396,956,771,760,696,882,818,735,671,791,859,271,292,343,532,903,911,632,340,968,324,712,905,638,815,959,920,954,394,883,819,978,872,808,977,624,576,837,452,476,524,552,754,690,916,515,642,919,580,512,504,770,455,479,193,596,847,783,385,706,900,869,805,877,496,979,214,949,686,948,962,648,764,484,750,918,821,885,538,419,964,881,390,507,700,254,568,535,421,334,438,210,703,910,604,487,891,418,192,814,616,442,516,466,820,884,546,570,446,470,612,258,478,304,742,631,482,678,326,946,801,824,888,904,930,662,236,726,718,197,654,598,767,498,458,490,208,627,618,420,734,290,833,670,921,200,527,196,233,558,590,902,297,153,454,389,533,156,138,854,483,296,232,958,142,16,413,518,168,199,960,176,256,388,229,633,56,250,148,189,790,226,863,143,606,218,444,190,260,387,216,586,241,225,211,234,556,219,186,238,506,220,486,201,328,768,195,640,582,162,170,154,207,178,213,566,224,251,161,862,152,184,212,198,342,270,782,846,626,61,704,215,425,526,14,68,58,319,917,429,517,401,55,617,562,403,641,239,144,66,410,437,179,181,423,411,21,436,362,160,480,65,426,405,10,404,402,57,9,67,361,400,366,364,412,23,422,360,408,427,363,11,24,351,22,353,369,180,3,62,428,54,434,15,26,25,12,435,368,34,398,5,19,359,8,365,350,352,399,407,63,354,28,29,69,371,4,27,41,60,20,357,119,81,134,355,406,132,30,2,18,358,39,130,356,124,17,123,136,108,76,101,52,84,93,33,47,43,36,174,322,320,175,45,98,122,7,111,112,106,128,82,109,127,94,1,102,104,96,115,64,118,105,121,79,78,85,103,228,91,86,116,100,99,126,51,87,137,44,40,97,75,32,42,107,73,31,59,77,80,92,6,37,88,89,53,49,110,38,72,48,71,135,95,74,120,125,113,83,133,131,35,46,117,129,90,50,114,367,70 |
| **ReliefA** | 409,545,973,445,401,585,397,957,925,681,745,829,485,953,33,417,777,433,909,408,677,741,393,861,71,709,645,713,649,757,693,781,845,853,753,689,797,765,701,74,349,277,581,945,717,81,653,929,733,669,95,725,661,952,91,828,400,80,108,543,557,776,740,676,98,115,407,541,908,971,122,38,972,481,924,666,730,540,584,699,705,605,763,396,956,926,82,714,650,794,923,942,99,266,744,505,680,348,276,769,399,827,104,804,868,775,107,267,722,658,443,863,647,125,544,230,242,809,873,26,25,712,711,324,76,764,891,385,22,75,862,756,692,839,708,796,812,648,858,414,583,700,36,402,457,644,752,688,134,231,444,89,597,278,415,132,542,310,177,292,283,392,85,127,298,778,842,111,112,321,47,129,755,691,850,113,526,306,314,626,182,795,497,53,176,103,287,146,959,951,362,286,907,789,790,61,163,171,739,244,432,675,280,416,580,243,944,970,326,299,604,219,643,410,147,504,148,264,556,19,747,960,262,683,23,303,859,124,179,311,320,937,484,315,707,62,841,835,307,143,109,94,139,282,289,21,779,843,285,2,92,860,667,603,851,181,731,24,260,167,29,130,687,539,227,30,961,185,136,248,751,892,39,265,279,840,774,263,155,120,245,178,5,943,876,284,389,423,281,612,768,28,715,651,188,837,782,846,704,69,826,723,659,805,869,927,268,864,879,398,512,256,808,872,780,844,144,613,140,424,380,302,555,290,906,142,360,852,68,465,833,596,288,138,503,610,496,513,252,359,510,67,350,296,229,170,162,372,54,175,748,684,732,595,922,668,446,470,206,546,570,323,49,183,202,965,20,184,332,180,159,187,226,602,893,325,936,319,254,387,682,895,981,322,422,746,305,430,502,436,330,218,456,128,368,149,258,334,145,438,831,55,275,141,347,318,135,896,174,611,376,938,240,27,594,749,18,685,15,358,119,253,527,452,42,221,131,511,552,640,642,388,52,294,494,383,495,304,480,191,706,934,269,233,166,300,291,367,897,476,524,576,624,199,803,867,958,328,696,760,382,72,565,646,690,754,618,312,518,710,750,686,762,975,340,968,627,133,798,824,888,308,641,788,698,928,316,154,977,787,395,955,270,342,875,811,195,293,84,662,726,635,232,654,718,670,536,734,431,241,877,930,327,818,882,361,249,272,344,634,950,974,716,118,874,652,86,100,77,442,946,674,738,819,883,679,743,881,964,239,190,198,899,213,466,217,636,915,4,820,884,724,660,630,865,197,836,273,271,343,810,345,530,126,425,379,471,447,547,571,854,172,164,196,59,462,331,632,532,363,813,209,616,224,890,771,375,102,799,406,259,158,255,168,566,516,237,391,101,703,371,156,200,564,192,411,574,622,66,455,250,386,439,160,817,335,802,866,186,384,773,770,351,12,236,551,464,537,189,767,575,623,838,830,451,474,522,550,151,435,261,918,598,257,475,523,37,403,309,783,847,215,251,919,48,825,889,637,354,450,201,579,297,212,339,967,317,784,848,16,211,567,558,590,333,214,235,531,535,426,935,434,228,538,800,234,759,695,498,295,519,313,619,301,338,966,880,904,807,871,920,694,758,815,418,791,73,483,225,562,963,216,894,962,32,193,220,582,814,9,631,834,458,490,617,568,719,60,655,468,663,727,599,801,821,885,369,735,671,931,70,976,600,381,772,246,792,479,979,500,437,823,887,517,238,165,173,467,980,786,914,560,592,210,460,492,978,559,591,606,152,586,832,588,608,633,41,488,766,878,63,508,533,902,913,822,886,169,816,377,157,370,898,205,855,910,589,702,917,601,378,489,373,336,440,329,554,856,609,87,65,506,150,561,593,509,161,569,486,499,57,90,921,194,469,947,501,463,572,548,454,472,448,940,528,223,461,493,939,529,337,441,390,912,549,573,459,491,449,473,534,628,366,629,247,274,346,916,806,870,563,901,44,900,374,208,793,607,664,728,428,10,153,587,352,14,656,720,672,948,905,932,736,222,620,520,79,35,207,903,356,420,114,419,116,614,3,394,954,785,849,697,911,50,46,761,742,507,97,96,487,678,123,638,341,969,515,553,453,51,482,514,577,625,477,525,478,615,357,941,578,13,11,639,204,427,429,355,7,64,353,137,117,1,56,857,110,949,203,6,665,729,521,621,721,657,17,93,933,106,105,58,737,673,40,121,34,8,83,364,78,43,421,31,88,412,404,413,365,45,405 |
| **UMCFS** | 307,317,188,379,457,182,831,299,605,640,314,833,23,557,702,773,221,330,939,921,976,225,193,147,513,814,897,595,313,977,705,920,300,372,220,770,791,241,311,585,569,22,192,649,315,334,309,919,340,968,725,138,923,335,392,240,209,195,380,918,258,579,261,653,975,759,854,349,619,489,660,310,454,753,974,689,898,925,194,668,360,811,648,265,222,965,952,874,515,703,597,291,767,233,700,841,361,603,478,567,856,695,510,488,308,316,961,670,184,580,183,963,239,373,264,236,504,855,290,785,849,530,277,673,928,142,776,815,724,618,260,858,610,832,226,828,187,505,771,224,666,148,840,839,441,286,480,228,629,141,189,639,293,555,384,479,438,288,262,185,613,208,932,263,614,587,186,926,528,245,301,682,526,278,385,149,581,628,627,766,826,502,468,697,312,230,765,797,191,903,512,378,180,529,517,242,439,632,578,257,369,938,782,777,846,273,511,630,596,667,761,793,367,790,834,326,217,223,171,768,527,929,477,525,896,518,745,775,880,626,772,877,959,838,914,582,749,250,471,447,497,746,556,455,232,617,875,570,546,346,568,503,475,523,951,564,958,196,271,275,575,623,368,561,879,424,483,205,593,764,451,669,467,730,743,943,391,343,551,199,331,980,671,339,967,521,661,274,684,676,953,717,285,237,347,423,616,381,466,784,672,214,848,902,535,774,762,760,620,576,624,740,895,604,212,204,298,140,216,922,905,440,370,940,758,270,235,723,783,336,847,819,733,883,345,615,254,944,704,816,377,566,174,810,836,962,721,366,722,818,485,882,742,342,552,256,151,631,376,374,894,812,514,215,612,472,448,281,698,173,446,470,583,731,428,280,821,739,885,231,685,351,382,63,657,748,532,266,422,881,817,52,54,252,337,452,678,397,383,835,519,540,198,957,794,476,830,524,469,692,589,756,436,207,435,701,243,680,292,461,493,634,687,658,750,481,393,732,396,979,494,862,496,945,752,930,484,735,688,956,238,737,550,915,726,936,677,837,563,255,577,906,850,558,590,160,554,139,437,574,751,473,449,458,251,190,611,490,375,625,686,716,622,694,584,827,201,859,425,344,538,358,900,864,805,869,571,547,306,763,602,259,941,960,652,769,289,654,163,562,553,641,973,646,541,305,865,338,966,917,158,712,283,210,799,586,356,395,465,450,426,878,219,955,633,371,297,718,927,852,647,964,429,387,650,857,460,492,520,145,144,495,218,474,522,531,713,901,950,621,860,178,327,728,463,341,969,971,284,386,747,664,206,354,464,910,268,675,269,179,912,516,937,150,813,635,533,942,434,153,714,276,867,803,954,394,911,159,644,662,248,146,170,656,659,175,355,329,548,572,699,181,981,267,804,868,899,247,456,200,390,744,320,651,459,433,491,234,165,690,754,417,350,359,203,738,892,328,211,876,348,674,332,353,152,143,287,333,709,388,302,851,534,253,734,482,352,486,272,161,323,227,645,487,720,866,560,802,202,172,389,592,12,792,637,537,715,279,807,924,871,444,544,167,357,322,295,427,853,978,913,244,789,77,636,197,539,213,788,796,588,893,303,970,916,873,809,638,884,949,890,891,727,861,453,870,806,594,820,62,778,842,154,665,414,931,156,304,708,229,49,176,863,246,729,800,24,643,430,44,415,536,663,177,249,935,559,591,432,933,134,948,15,11,711,56,908,162,445,798,282,679,545,683,710,904,462,132,166,431,133,736,719,420,294,131,808,872,655,168,786,946,443,10,69,829,693,757,707,573,549,934,416,155,696,681,164,50,787,825,889,296,822,886,801,9,947,823,887,972,67,29,13,907,47,21,28,601,318,14,113,66,16,5,824,888,57,325,565,706,8,169,36,61,70,509,319,543,59,741,419,65,418,130,55,68,609,45,499,909,508,642,795,598,507,4,42,39,607,608,60,599,506,606,600,87,76,72,421,25,324,157,498,779,38,845,33,843,442,781,73,100,136,780,399,409,844,500,405,30,129,3,43,755,691,398,542,128,17,74,37,137,365,408,51,321,26,412,400,501,114,94,362,90,84,364,32,41,89,35,97,75,127,27,125,101,53,111,123,112,82,18,102,58,92,413,20,6,120,98,34,108,411,85,19,2,78,88,7,46,109,118,115,401,363,107,103,91,110,95,64,93,86,106,79,40,80,116,119,83,135,1,105,117,48,410,402,126,403,96,104,122,31,99,121,81,124,406,404,71,407 |
| **UDFSA** | 967,395,955,339,975,407,978,979,409,271,348,355,956,371,651,951,527,974,659,958,386,379,365,413,927,966,426,89,115,451,976,637,727,973,957,954,723,1,715,953,375,402,519,977,961,408,25,364,619,109,427,526,964,972,340,968,965,277,531,887,124,82,952,80,969,356,105,26,280,452,285,136,626,40,21,274,632,28,971,564,30,783,931,289,291,98,121,871,354,372,283,551,864,733,789,719,57,373,299,962,103,667,800,311,321,351,4,663,343,797,847,631,544,367,110,449,117,431,275,78,852,855,86,248,31,8,801,345,475,547,435,404,2,305,633,795,276,288,791,24,536,655,477,813,383,925,95,462,731,133,119,341,281,725,387,377,680,695,135,104,914,505,101,523,980,869,909,476,363,605,529,697,621,403,575,679,309,273,669,811,545,671,267,36,55,270,765,673,405,362,417,805,342,851,58,29,137,735,610,793,66,792,668,56,485,43,120,107,315,717,524,132,571,118,450,123,759,510,331,761,69,865,442,907,743,623,576,421,134,381,411,10,734,13,885,9,349,369,577,425,941,294,353,83,859,908,415,720,424,131,453,335,701,406,812,23,785,730,939,350,397,597,418,780,334,436,560,857,96,67,928,535,948,543,583,5,842,970,849,729,650,930,488,654,799,635,307,533,732,473,428,537,434,525,817,542,570,282,585,513,528,563,936,696,737,670,326,934,464,419,959,662,130,946,437,652,552,439,718,843,821,45,681,389,867,923,943,726,518,286,255,553,892,629,75,919,803,304,933,716,447,899,823,816,884,618,873,92,868,246,3,915,940,721,630,699,376,921,891,561,745,338,22,950,295,360,382,71,546,593,658,904,245,128,672,862,949,808,18,210,357,912,613,788,272,963,433,399,910,161,127,889,284,259,809,310,714,370,782,17,278,300,779,81,877,807,840,860,20,27,850,694,893,337,250,302,352,260,198,854,825,926,463,763,856,636,333,366,589,888,880,97,532,317,886,625,787,448,358,815,47,414,264,917,15,125,325,902,740,234,833,41,114,465,297,861,306,521,762,698,938,332,827,845,903,420,944,627,262,293,664,497,385,429,913,298,129,486,875,301,384,68,388,573,51,898,94,846,620,394,102,777,203,764,760,929,794,660,359,676,700,470,624,70,247,736,329,945,900,587,149,960,549,602,870,758,461,106,661,634,193,314,33,653,445,327,775,73,863,839,265,685,257,530,126,487,890,881,227,202,804,400,569,308,440,588,819,483,515,100,374,774,484,14,924,778,199,622,423,242,565,628,586,122,74,251,522,905,666,790,263,557,496,489,330,883,932,361,665,38,738,592,493,822,459,713,391,446,935,443,279,287,744,143,901,469,378,874,611,753,649,269,296,516,244,303,243,155,290,848,574,53,703,322,584,11,195,158,471,572,844,841,784,689,171,458,616,312,292,677,802,749,728,724,79,603,771,159,226,918,153,798,615,722,37,776,705,170,344,19,157,879,336,108,468,65,192,937,167,829,318,324,820,568,88,139,920,319,253,741,555,472,99,838,444,207,380,534,769,490,558,328,145,398,947,313,882,233,60,316,684,32,221,218,806,781,201,35,156,590,209,514,230,160,502,824,595,396,173,249,742,205,256,412,34,591,581,6,582,834,347,323,346,49,368,432,922,786,85,39,228,942,548,517,154,401,206,150,183,236,237,675,579,674,116,163,818,479,866,91,647,392,231,254,474,494,511,550,191,93,182,872,594,438,711,144,896,220,261,826,580,181,810,704,238,772,64,16,140,491,441,177,770,492,390,481,520,457,224,178,693,410,223,214,559,752,172,61,504,495,84,148,7,204,184,739,482,222,837,393,186,612,748,188,235,266,165,757,208,773,141,796,219,657,556,467,169,895,614,656,503,152,566,12,709,835,858,596,814,62,174,832,645,268,164,225,567,138,828,232,213,189,768,200,147,185,59,836,500,916,648,211,906,512,229,678,456,416,196,460,168,320,87,480,831,876,90,646,641,63,187,601,151,911,50,897,72,212,640,687,501,691,638,48,683,166,682,252,562,554,751,190,215,142,194,146,466,710,755,180,54,746,175,766,52,454,878,639,239,422,981,241,617,179,162,46,894,643,455,478,747,604,707,176,216,688,217,197,767,712,644,498,598,756,430,853,240,702,578,499,686,540,750,690,599,258,509,754,600,830,642,608,609,541,708,507,42,508,606,538,607,506,706,539,692,44,111,112,76,113,77 |
| **LLBCFS** | 409,408,407,406,92,124,129,128,115,107,94,86,81,82,122,102,117,626,130,132,119,116,120,106,526,134,95,93,127,109,96,125,636,121,283,135,105,1,78,131,133,83,282,91,103,25,79,126,104,99,118,88,285,110,123,84,287,33,89,284,64,286,637,32,80,97,85,31,289,349,277,627,30,45,288,527,41,270,342,98,402,276,348,29,403,411,410,628,528,40,17,362,108,629,529,363,28,634,75,90,74,345,71,273,43,280,281,136,264,271,265,343,635,101,413,344,272,532,632,22,27,34,404,263,35,11,279,328,2,242,278,56,274,262,346,10,427,355,890,327,55,8,412,533,633,365,388,46,326,405,786,476,524,576,624,426,893,651,329,715,452,552,659,4,100,723,354,6,909,364,158,243,429,368,714,650,292,245,891,788,5,908,48,14,357,39,658,23,722,542,53,340,968,332,760,927,696,764,389,19,428,700,477,525,244,537,159,789,577,625,376,356,862,333,453,13,553,308,21,137,293,536,661,725,812,312,865,926,970,316,717,653,51,300,853,3,787,781,845,290,387,369,864,330,863,518,934,331,400,530,618,924,303,57,352,260,309,256,630,861,304,341,969,317,38,384,301,313,296,761,946,697,311,267,291,299,307,929,620,520,972,42,828,54,315,269,928,26,302,776,937,377,670,734,386,9,268,398,353,246,731,932,667,930,720,656,718,654,907,726,662,728,664,350,305,202,850,858,778,842,254,258,314,306,784,848,904,380,257,247,813,805,869,372,800,666,851,730,736,261,672,804,868,297,737,673,545,779,843,58,52,574,622,266,474,522,24,936,294,310,550,298,810,952,462,66,450,698,933,740,799,255,676,621,521,69,61,914,721,657,716,248,385,762,860,668,652,732,259,801,741,782,846,464,859,947,584,811,677,665,729,338,966,249,973,953,70,366,519,826,619,36,442,785,849,950,401,856,138,631,758,436,694,275,892,445,347,857,564,49,198,531,588,421,142,931,203,295,780,844,727,663,674,418,774,738,733,877,719,381,655,604,504,488,114,852,373,724,671,735,854,660,669,465,351,67,575,623,374,486,701,475,523,793,440,448,472,922,170,548,572,910,949,485,940,551,20,824,888,961,451,898,563,585,792,765,336,959,916,199,587,960,682,470,446,746,938,546,570,382,463,935,925,396,956,586,783,847,383,437,841,915,325,744,512,790,791,154,438,680,803,867,951,510,68,699,912,612,763,739,876,675,941,339,967,334,171,802,866,948,958,502,60,441,487,939,899,820,884,18,964,562,505,139,419,759,695,73,337,775,50,399,549,573,143,473,449,544,367,605,920,838,610,875,565,513,72,141,874,906,534,602,397,957,145,943,458,490,535,146,613,420,855,434,161,825,889,747,683,745,147,900,155,681,511,439,447,471,547,571,822,886,460,492,560,592,795,16,945,435,749,911,685,503,360,796,424,375,558,590,191,335,917,902,378,444,319,798,827,816,582,111,112,230,459,491,829,318,65,777,903,611,559,591,370,87,484,432,186,425,583,251,394,954,361,194,603,965,416,201,7,190,210,496,821,885,596,913,742,379,678,921,322,195,981,231,204,839,371,823,887,187,12,942,817,980,589,489,234,918,962,840,182,808,872,250,482,205,901,166,494,497,815,797,818,882,149,15,183,923,37,160,794,878,814,320,919,461,493,176,422,140,597,173,358,561,593,594,144,206,905,323,211,167,971,207,423,252,963,359,162,150,748,213,684,218,77,881,200,819,883,148,175,219,193,543,880,979,395,955,235,163,495,879,178,179,978,233,809,873,743,679,944,595,151,253,483,192,772,433,417,197,196,188,212,172,214,185,47,468,222,773,215,189,180,324,184,157,227,568,226,221,443,181,806,870,431,321,771,770,174,152,807,871,209,415,208,467,648,430,153,223,62,232,156,237,712,516,414,567,469,566,466,616,836,837,220,238,59,515,239,569,834,169,517,649,236,713,165,225,514,617,224,556,615,480,392,229,835,113,580,456,168,614,768,216,704,228,164,217,646,710,457,976,896,688,393,554,557,752,769,177,753,689,975,455,454,478,481,647,390,977,705,581,711,578,831,832,555,479,894,897,974,640,766,391,579,702,767,895,703,833,641,686,830,750,756,692,241,693,757,687,751,638,639,63,240,500,644,600,498,708,645,709,499,754,690,598,599,501,601,755,691,642,706,76,643,707,540,507,506,508,608,607,541,606,509,609,538,539,44 |
| **CSFA** | 259,602,504,126,78,720,69,855,247,796,16,267,206,476,524,301,47,292,445,237,877,227,71,175,28,147,19,620,50,577,625,14,735,799,897,174,277,113,264,64,26,25,10,657,124,560,592,91,838,280,788,329,699,37,263,431,753,109,510,780,844,67,88,944,94,880,898,27,597,46,717,232,334,236,383,117,274,864,674,33,238,283,378,13,738,488,20,712,795,911,156,84,667,935,252,434,781,845,297,418,201,315,85,299,48,721,96,896,472,230,448,42,770,60,182,22,750,281,415,304,639,219,246,696,359,860,110,921,807,817,871,661,210,104,212,794,119,30,322,194,421,169,452,852,103,130,643,80,697,716,831,251,644,915,946,38,260,82,395,955,284,408,167,833,151,806,870,401,121,733,218,529,213,629,933,858,107,732,810,569,339,398,967,79,177,516,35,410,23,53,584,447,471,366,671,790,379,164,172,154,679,75,601,208,324,426,945,200,132,168,411,618,29,136,9,17,766,709,43,34,482,240,798,241,305,81,248,550,256,532,271,773,116,423,196,926,828,203,36,186,296,513,254,543,97,233,90,582,541,835,330,899,258,960,429,100,682,122,952,972,859,374,853,288,943,287,325,66,929,303,372,32,451,7,862,936,51,143,77,59,484,483,49,450,58,729,89,286,331,728,556,861,356,159,563,669,211,318,209,404,269,179,668,216,912,65,102,202,220,695,761,632,70,323,195,759,73,261,120,906,123,559,591,363,878,789,320,118,349,600,760,942,420,24,515,664,413,707,803,867,641,640,430,856,399,44,710,758,146,723,63,703,754,690,125,540,922,751,786,99,115,981,552,392,573,549,157,820,884,406,651,630,834,98,396,956,68,687,235,459,491,31,312,481,528,914,242,407,129,777,531,353,384,586,131,553,214,340,968,74,385,637,93,548,572,951,311,105,228,166,390,41,879,652,319,255,467,964,670,341,969,54,748,133,458,490,224,39,265,442,611,653,659,480,135,814,518,190,902,338,966,134,895,373,731,127,268,375,722,740,581,185,551,221,487,234,336,787,734,231,940,785,849,8,797,801,295,609,736,822,886,377,293,438,376,503,823,887,5,419,505,72,768,971,197,276,588,495,970,608,128,575,623,496,756,692,809,873,558,590,455,974,840,180,187,589,360,15,854,850,178,262,656,534,804,868,604,198,673,642,405,977,932,428,229,744,947,244,462,506,355,137,678,676,3,403,497,245,139,204,612,391,223,585,701,811,432,519,824,888,715,285,910,800,841,571,547,595,253,594,170,162,579,207,688,649,580,57,367,326,364,397,957,158,111,112,302,141,309,427,598,160,446,470,700,913,660,313,444,839,114,565,875,749,905,527,348,278,665,76,40,578,393,243,205,289,539,764,976,351,412,647,725,435,566,381,502,561,593,191,557,239,509,474,522,501,52,894,576,624,658,148,826,414,226,827,851,321,350,189,152,92,923,689,904,583,346,863,928,907,939,464,294,477,525,457,333,724,909,816,314,808,872,402,433,680,500,199,1,648,499,440,494,369,666,683,564,193,934,365,526,743,901,439,631,161,86,461,493,387,466,468,775,778,842,684,215,343,328,857,183,291,165,95,11,173,941,832,108,920,347,454,538,62,308,927,603,465,727,380,762,358,485,479,805,869,101,386,517,6,354,792,443,958,783,847,599,765,337,605,711,567,746,163,171,763,718,627,12,730,771,536,698,307,542,507,317,188,362,424,460,492,61,965,626,266,257,962,979,416,437,950,837,554,694,829,918,610,925,176,357,574,622,737,144,908,654,217,930,4,508,417,619,222,757,693,663,830,621,192,388,650,587,633,106,638,903,607,714,56,478,249,298,705,535,815,617,352,772,279,636,953,456,635,332,520,2,812,752,87,691,755,400,272,675,706,511,890,344,892,425,306,83,741,747,813,21,422,463,708,961,335,776,681,782,846,441,327,924,371,616,802,866,489,779,843,606,546,570,876,521,250,634,686,150,469,514,184,149,45,614,290,544,874,389,819,883,613,948,881,645,368,739,685,719,453,270,596,486,742,382,555,394,954,774,655,316,900,937,498,980,533,568,275,917,959,825,889,370,475,523,769,342,818,882,963,836,142,726,512,973,153,530,949,821,885,916,361,473,449,282,409,893,919,55,704,225,662,784,848,145,615,978,702,931,181,155,537,273,138,791,300,140,345,18,713,677,646,745,628,436,562,891,793,975,767,310,672,865,545,938 |
| **FSASL** | 283,536,282,535,537,409,534,1,242,362,407,408,285,406,284,483,978,979,904,64,119,627,426,910,403,353,527,349,277,55,130,43,940,962,526,417,903,963,818,882,363,354,920,244,410,243,918,911,402,816,933,287,245,433,350,289,729,665,721,657,56,210,662,726,965,930,939,964,267,288,654,718,626,269,355,351,664,728,158,132,737,352,932,673,656,720,620,520,427,941,270,151,234,342,482,361,618,884,820,821,885,438,981,334,201,560,592,160,405,549,573,94,473,449,854,518,521,621,919,857,44,7,734,18,303,460,492,588,790,161,670,439,335,772,198,99,490,458,429,413,921,304,35,226,412,286,849,785,154,519,814,131,415,89,305,727,156,425,663,855,107,133,488,637,879,414,619,31,491,459,905,213,422,793,486,359,365,815,655,791,719,218,980,357,938,470,446,423,430,431,912,783,847,199,593,561,168,301,913,909,202,22,302,313,931,557,150,437,120,358,771,317,166,934,883,819,441,360,487,157,736,792,369,672,471,447,558,590,67,155,237,671,448,472,266,569,393,271,468,424,307,688,752,309,572,548,902,461,493,856,126,735,214,125,315,770,377,825,889,236,273,216,167,343,835,567,200,784,848,159,899,432,914,70,634,138,299,337,421,142,139,223,212,546,570,411,308,169,817,469,272,898,586,341,969,344,240,143,222,217,751,23,705,636,466,769,241,229,687,757,693,12,416,897,63,467,786,644,692,756,697,761,949,221,708,440,117,970,782,846,457,566,311,336,481,836,381,750,881,153,587,686,364,268,36,581,86,85,20,225,689,54,105,806,870,589,541,707,833,428,880,345,238,742,32,678,392,617,753,297,547,571,529,380,517,837,754,690,641,871,807,568,643,755,691,746,645,456,682,787,276,706,235,316,84,372,642,250,480,709,747,152,683,147,538,327,15,826,609,368,373,601,768,204,509,563,954,394,591,559,539,506,228,436,239,639,704,556,398,224,608,197,540,501,508,348,507,832,679,606,220,743,894,878,326,677,579,935,300,312,741,211,607,489,773,629,203,21,81,555,834,390,93,600,498,580,699,951,977,500,499,830,640,763,900,598,774,314,896,936,208,952,88,829,599,47,762,564,395,955,553,702,419,698,252,812,628,766,194,146,616,562,739,675,516,917,915,391,862,554,69,873,809,253,831,41,435,789,195,895,404,219,479,515,676,615,478,703,83,872,808,16,888,824,296,638,976,740,193,52,420,585,196,205,578,767,215,953,19,106,454,950,777,901,552,386,418,877,614,14,565,455,453,959,462,908,452,973,696,974,760,525,477,257,306,376,26,17,102,62,975,295,635,922,135,261,514,149,66,876,867,803,164,333,356,576,624,209,45,463,387,249,13,91,233,227,875,647,182,764,476,524,937,865,251,924,674,528,188,207,788,280,134,136,906,738,434,801,711,510,298,148,140,165,206,141,294,264,144,822,886,145,124,163,100,502,633,577,625,700,891,765,838,701,851,179,191,533,946,923,260,190,968,340,185,907,843,779,776,65,256,864,948,602,104,180,186,887,823,232,610,813,649,971,310,464,713,90,869,805,646,189,947,379,925,116,710,666,542,183,383,730,24,247,648,511,961,859,181,828,863,811,108,685,841,749,684,748,265,192,503,187,248,53,293,874,178,331,231,382,712,68,658,50,604,722,371,545,612,926,370,504,110,611,603,291,281,184,512,972,465,868,804,505,162,916,82,332,839,605,775,513,960,613,494,96,255,650,714,259,109,958,802,866,810,378,594,827,28,495,893,596,375,330,496,230,695,759,840,78,328,30,794,339,967,385,258,544,530,595,170,121,522,474,128,744,661,725,680,497,25,597,115,246,574,622,584,254,717,653,401,263,6,630,292,29,367,890,399,11,127,34,290,450,92,550,850,681,262,842,778,745,8,858,929,384,694,758,5,57,443,374,668,732,797,445,397,957,966,338,733,583,10,956,396,669,799,942,892,98,795,173,171,928,400,39,61,274,346,37,861,442,129,80,551,172,74,366,523,475,278,177,716,652,451,176,75,944,72,95,796,123,279,845,781,543,58,329,118,632,853,275,3,388,347,623,575,724,660,798,943,103,319,532,444,631,137,800,2,60,945,33,27,76,48,389,46,101,79,122,40,59,582,71,73,4,42,667,860,731,531,38,77,844,780,852,87,9,174,659,723,484,175,114,321,323,324,325,927,51,111,112,113,485,97,322,318,715,651,49,320 |
| **UFSIL** | 437,863,860,34,11,297,353,701,114,485,301,257,355,537,289,589,13,40,473,565,817,633,810,401,54,635,255,657,429,463,346,823,80,286,387,902,120,962,310,794,305,95,306,338,418,27,445,291,814,574,314,16,55,533,357,298,81,963,101,550,385,737,264,788,426,363,629,349,903,822,285,93,64,135,121,91,405,530,41,332,277,908,24,272,110,765,280,449,100,70,107,867,90,265,622,661,697,122,824,948,271,621,915,61,69,636,856,542,876,109,129,296,434,75,973,124,317,365,329,386,909,31,43,137,131,411,933,287,413,266,461,94,25,402,117,717,304,293,801,787,337,326,911,813,119,354,259,777,971,281,325,899,299,890,261,245,936,630,733,330,521,83,389,133,587,126,966,98,425,127,276,493,5,274,361,637,269,474,669,943,913,803,74,2,21,532,758,891,865,283,529,79,522,86,888,333,653,403,559,970,343,313,10,886,106,28,829,465,721,563,33,136,311,786,78,103,728,725,593,969,288,273,366,929,22,800,18,12,404,573,6,23,348,345,65,97,926,324,99,412,487,268,303,15,910,1,71,92,932,7,319,720,48,959,328,327,406,672,526,377,773,96,8,857,632,419,105,344,665,736,673,58,72,650,852,88,309,511,115,585,795,864,45,441,56,491,761,84,270,427,790,489,39,374,729,730,770,681,459,407,352,586,4,677,160,591,780,284,945,486,382,853,561,656,576,552,624,292,741,626,745,282,102,29,861,714,503,450,256,17,322,116,341,887,527,342,528,694,26,408,279,549,368,315,19,409,263,628,844,583,123,30,666,524,664,536,476,695,307,866,802,275,759,534,785,421,914,125,781,845,722,942,841,362,849,452,627,290,347,68,893,938,918,658,784,848,793,807,130,871,364,543,927,510,668,369,453,267,934,14,435,797,732,715,763,52,651,3,699,159,582,82,796,378,980,535,667,196,731,905,873,809,953,177,495,907,420,331,634,104,562,356,965,610,128,923,955,631,577,625,743,553,190,520,839,235,395,260,444,921,172,679,941,247,302,397,957,57,792,243,212,49,360,339,967,958,949,877,188,937,424,620,603,439,739,242,295,961,198,675,892,335,262,244,551,898,956,396,811,789,531,798,904,889,825,723,928,359,428,158,451,477,525,659,881,744,398,680,808,872,375,940,862,470,446,484,850,951,838,944,371,778,842,423,443,350,197,399,436,515,318,60,815,206,47,448,472,370,858,85,821,885,351,367,946,698,964,611,89,316,595,308,570,546,379,575,623,762,50,414,62,248,195,433,716,901,652,9,294,488,846,782,572,548,840,812,518,547,571,447,471,724,671,320,300,458,490,660,227,118,663,727,278,67,321,735,202,189,440,432,851,879,719,523,475,513,558,590,417,544,430,924,336,925,655,619,519,183,931,779,502,843,132,602,978,148,960,384,497,312,38,939,819,883,410,186,258,59,584,323,880,746,775,161,36,205,462,682,588,218,249,747,683,394,954,771,156,827,416,358,613,799,870,806,200,670,203,140,144,108,859,134,173,676,373,51,66,400,740,438,545,380,742,442,207,334,170,678,176,837,738,201,219,674,467,171,254,457,494,53,230,594,950,734,976,597,804,868,836,35,662,142,726,952,191,567,234,164,748,73,32,875,139,684,383,388,422,654,718,564,696,155,922,700,605,42,968,340,208,947,154,246,882,818,199,596,604,464,253,146,46,376,194,760,828,878,979,192,138,505,618,847,783,854,504,147,456,204,460,492,569,143,816,180,149,220,381,211,231,496,592,560,930,225,833,776,236,832,649,157,483,920,615,153,820,884,213,20,224,182,919,764,165,805,869,415,250,874,179,233,612,912,512,162,222,150,972,372,468,166,163,835,37,895,791,193,185,900,251,566,935,174,826,431,480,168,391,226,906,855,209,237,151,167,214,169,252,239,392,152,916,580,240,917,469,145,704,175,232,393,63,581,481,217,501,711,141,647,482,578,554,601,579,974,223,184,241,517,181,514,210,769,713,640,768,614,617,977,229,178,767,556,772,897,187,975,454,215,516,712,703,499,648,616,221,749,834,685,238,705,599,466,509,894,609,555,646,600,390,113,507,752,710,500,87,702,607,830,642,688,692,756,639,766,478,540,687,706,751,690,754,606,608,506,644,508,479,228,686,708,598,216,693,757,750,774,557,498,539,645,455,568,538,541,707,689,753,643,709,831,691,755,641,638,896,76,44,77,112,111,981 |
| **LASSO** | 541,643,498,556,976,578,639,232,193,975,233,188,895,640,579,540,903,215,980,585,222,251,227,465,200,217,384,894,484,532,937,495,376,186,301,874,358,241,902,202,543,367,515,964,566,245,467,827,416,947,697,852,545,584,840,234,644,9,581,893,806,175,280,208,792,941,907,464,460,197,615,267,181,246,948,970,801,612,805,473,28,562,256,5,221,229,658,794,786,354,360,44,191,226,514,946,631,278,444,911,266,917,305,243,242,69,945,455,332,18,418,529,520,114,943,956,355,761,12,170,979,855,90,3,909,432,321,944,327,399,815,889,176,421,113,680,338,971,357,387,523,37,526,32,55,24,401,318,75,27,294,817,912,488,403,341,353,527,914,851,42,68,862,365,969,404,51,223,216,333,80,198,319,323,386,65,429,70,362,414,629,136,45,407,86,118,82,52,521,966,128,419,203,383,59,121,449,46,913,410,415,40,363,108,96,124,91,58,88,475,107,324,105,79,408,405,48,406,74,442,64,635,127,162,123,800,772,799,876,6,359,98,867,192,803,92,15,102,122,713,396,368,825,8,16,20,22,30,35,56,61,73,112,125,132,133,138,139,140,141,142,144,145,146,147,148,149,150,151,153,155,156,157,159,163,167,168,169,171,178,179,183,184,185,187,189,190,194,195,196,199,201,207,209,210,212,218,220,224,231,249,254,255,258,259,260,261,262,263,264,265,270,274,275,276,277,282,283,284,285,289,291,292,293,295,297,298,300,302,303,306,307,308,309,310,311,312,313,314,315,316,317,328,330,331,334,335,336,337,339,340,343,344,347,348,349,350,356,369,370,371,373,374,377,378,379,381,382,385,388,390,391,394,397,417,420,425,426,430,431,435,436,437,438,439,441,448,450,451,454,456,457,458,459,461,466,470,471,472,474,477,480,482,483,486,490,491,492,493,494,496,497,499,500,501,502,503,504,505,506,507,509,510,511,512,513,517,519,522,524,525,530,531,535,536,538,546,547,548,549,550,551,552,553,554,558,559,560,561,563,567,568,569,570,571,572,573,574,575,577,580,586,588,589,590,591,592,593,594,595,596,597,598,599,600,602,603,604,605,606,607,608,609,610,614,616,617,618,619,620,621,622,623,624,625,626,627,630,632,633,634,636,637,645,646,649,650,651,652,653,654,655,656,657,660,661,662,663,664,665,667,668,669,670,671,672,673,674,675,677,678,679,681,682,685,686,687,688,689,690,691,692,694,695,696,698,699,700,701,704,705,706,707,708,709,710,711,712,714,715,716,718,719,720,721,722,725,726,727,728,729,730,731,732,733,734,735,737,738,739,740,741,742,743,744,746,747,748,749,751,752,753,754,755,756,758,759,760,763,764,765,766,767,769,770,771,774,775,777,778,779,780,781,782,783,785,787,788,790,791,802,810,812,813,814,816,819,820,821,828,832,833,837,838,839,841,842,843,844,845,846,847,849,856,857,858,859,866,869,870,880,883,884,885,887,892,899,908,916,918,919,921,922,923,924,925,926,927,928,929,930,931,932,933,939,940,952,957,958,959,961,962,963,967,968,974,804,31,886,345,26,372,93,87,172,528,247,111,413,104,286,85,103,835,392,115,117,904,101,116,808,119,287,78,659,174,955,854,864,99,110,822,53,364,33,936,94,628,71,39,888,120,106,89,428,81,84,23,41,72,135,1,83,395,4,25,576,49,131,346,109,296,158,34,126,17,411,21,38,219,95,823,723,320,11,325,60,398,2,47,236,434,901,100,137,872,582,97,13,915,19,534,793,796,717,180,129,875,244,427,322,868,978,736,412,433,342,981,76,182,366,795,440,67,809,402,7,62,50,36,934,666,683,43,54,213,910,409,900,177,905,935,848,542,950,422,882,533,863,648,14,250,879,161,920,329,476,877,878,871,489,271,130,537,891,447,400,279,773,57,938,544,424,836,253,826,784,789,898,205,326,134,238,389,762,239,352,463,10,850,29,954,204,272,676,972,516,66,257,853,776,143,351,299,861,453,487,248,824,462,290,252,611,797,446,160,304,807,77,890,273,798,860,211,485,942,829,684,724,173,288,269,583,873,281,750,468,154,811,881,906,949,702,214,268,587,565,831,613,393,228,953,361,768,469,965,951,818,973,63,443,235,445,865,481,423,564,452,237,518,830,230,206,166,703,745,380,960,647,834,642,375,555,897,152,225,641,896,757,977,165,240,557,164,479,601,478,638,693,508,539 |

**Table 3**. Sequential arrangements provided by different FSAs for dataset CSD0.

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| **FSA** | **Sequential feature ranked by FSA** |
| **ILFS** | 840,740,676,892,543,175,888,824,971,148,683,747,61,905,310,146,512,229,443,951,898,748,684,145,504,595,188,496,245,200,178,195,217,141,440,336,137,643,264,332,739,675,431,745,681,885,821,388,668,182,732,596,424,976,945,839,612,177,520,620,688,752,370,916,409,503,708,548,572,448,472,491,459,603,140,205,891,384,144,923,836,913,67,578,932,181,153,287,426,860,157,604,664,728,911,644,253,656,720,265,473,521,261,900,500,303,277,165,283,672,736,173,880,329,837,183,289,313,139,143,928,584,415,172,164,707,377,266,940,549,161,169,794,559,591,966,338,980,692,756,387,162,170,637,872,808,180,284,525,687,160,168,204,163,171,600,432,914,305,755,691,629,625,374,830,428,166,907,804,868,392,156,599,197,185,60,239,527,449,883,819,874,187,560,592,319,154,158,751,184,828,895,246,478,803,867,279,290,758,272,344,563,369,460,492,827,228,237,219,203,694,716,776,975,220,206,345,679,743,208,537,230,186,944,889,207,650,714,833,567,373,231,652,53,249,574,622,147,879,949,908,20,399,167,958,897,788,454,573,621,250,499,511,402,11,225,972,192,155,925,873,682,673,222,159,259,199,855,533,302,484,142,138,288,835,906,15,323,176,285,482,936,746,834,495,863,877,7,627,738,326,878,785,674,233,281,320,263,196,832,648,979,152,464,467,799,737,712,397,779,843,649,713,317,957,611,331,809,425,851,212,54,831,529,257,318,427,772,282,924,853,395,955,19,234,730,894,420,295,198,304,920,974,453,952,216,65,912,273,555,412,235,280,950,657,666,816,865,801,793,766,209,481,721,796,700,875,805,869,262,227,348,876,764,896,418,787,810,469,445,538,218,213,513,286,417,811,963,341,382,434,514,201,269,802,866,490,458,927,378,934,545,569,775,179,330,744,383,647,943,628,680,297,959,441,535,614,190,960,506,651,396,956,904,731,884,820,715,939,763,528,800,935,433,321,271,556,498,729,948,26,463,978,711,969,849,447,471,699,151,486,215,919,750,941,241,534,483,724,841,777,887,823,242,540,455,665,456,507,618,798,701,686,667,292,706,661,725,933,518,343,398,669,733,416,240,634,571,547,564,586,244,812,211,149,606,315,901,468,583,598,580,903,191,451,977,910,759,546,570,430,660,221,243,551,485,475,523,536,322,734,946,470,446,296,487,693,757,742,575,623,856,702,238,505,954,394,654,558,590,274,385,566,653,717,353,670,386,474,522,328,400,429,223,695,962,561,544,929,436,444,893,390,585,437,333,613,771,256,718,339,967,964,210,926,480,479,838,278,806,870,678,381,324,642,539,662,726,797,594,930,602,530,334,438,531,291,371,607,413,55,899,909,861,659,723,605,631,519,619,477,309,610,829,609,255,633,847,783,363,961,494,509,346,502,174,457,489,741,337,965,497,362,335,439,814,846,782,299,862,389,973,64,342,677,214,617,765,276,254,663,727,361,769,781,845,931,316,938,632,393,953,150,224,587,562,626,247,408,194,268,270,69,517,813,792,251,589,557,301,719,655,532,307,671,735,226,790,638,635,308,918,314,22,193,859,248,442,312,327,379,848,784,770,768,581,380,364,236,608,12,56,822,886,526,306,462,915,401,902,375,300,703,57,510,593,351,21,135,403,815,615,552,754,690,542,857,597,588,818,882,917,452,854,258,864,890,493,17,260,95,419,311,554,515,189,14,704,508,710,365,568,624,576,360,791,476,524,376,267,352,541,488,639,252,68,786,646,340,968,565,461,350,767,553,616,601,325,404,501,8,10,947,13,4,760,696,922,298,636,372,24,25,807,871,774,411,937,640,349,23,356,358,762,698,817,881,516,579,3,51,466,354,825,858,435,414,1,366,789,421,773,826,407,18,465,410,582,778,842,27,850,202,38,450,9,2,6,658,722,423,92,970,368,697,761,359,347,115,921,275,709,355,645,91,44,100,16,689,753,749,96,685,62,705,641,357,83,89,71,104,128,133,126,103,82,795,406,422,136,40,94,367,107,405,105,116,577,33,123,102,84,59,981,391,108,77,63,118,232,86,88,942,43,127,117,28,130,132,29,106,34,125,32,39,49,47,78,120,87,124,79,134,119,90,101,293,98,85,31,5,81,121,97,114,70,109,73,41,37,45,630,46,75,48,50,58,76,110,111,112,113,131,129,30,93,35,74,99,550,122,36,72,80,52,42,780,844,66,852,294 |
| **ReliefA** | 63,64,95,800,96,83,80,103,948,91,400,121,119,981,71,124,85,105,130,132,364,223,27,724,660,793,29,199,941,229,28,768,716,652,828,171,163,89,704,744,191,348,680,396,956,107,276,235,776,231,784,848,167,67,61,444,729,665,155,823,887,928,796,356,376,239,388,115,324,78,416,700,668,925,672,732,764,792,736,159,794,392,411,910,924,203,648,969,368,649,428,126,544,713,272,108,344,432,772,300,712,100,852,780,844,336,839,220,440,513,620,583,56,656,520,835,720,412,972,932,614,879,548,572,863,891,420,664,827,448,472,728,82,188,424,44,399,721,657,116,360,951,613,543,352,509,312,404,380,900,219,952,971,860,164,172,72,407,609,692,756,514,59,486,401,483,506,580,676,740,586,606,831,485,187,638,856,505,264,462,443,816,395,955,944,168,332,921,151,156,280,558,590,144,584,480,140,598,675,457,489,739,402,180,497,775,644,230,160,372,458,490,148,384,40,21,633,196,177,129,131,461,227,498,213,465,484,31,81,908,748,288,684,610,562,679,909,409,689,753,743,585,940,24,25,605,708,791,556,961,69,906,77,645,362,224,528,709,864,51,398,408,628,637,960,133,557,589,236,641,688,204,705,328,749,597,38,425,685,634,173,418,761,316,267,697,466,604,493,964,205,601,626,501,752,923,936,836,202,566,397,207,904,763,237,526,353,699,510,593,912,976,880,184,88,504,206,456,579,636,596,54,174,249,197,627,527,149,117,308,139,284,292,340,968,853,152,363,561,342,711,143,270,195,455,468,436,840,496,214,576,624,630,419,799,594,530,568,391,476,524,181,647,244,899,176,552,946,817,881,973,947,760,897,696,818,882,452,161,169,825,165,915,896,46,918,153,268,917,47,49,208,57,157,602,930,565,654,718,801,865,670,734,773,339,967,726,662,771,631,898,494,479,755,691,895,666,555,730,618,804,868,873,536,147,695,441,427,518,759,612,531,198,926,714,943,141,650,445,469,600,560,592,145,66,500,502,876,460,492,137,22,256,722,892,658,963,182,902,36,820,884,385,303,809,65,216,212,512,977,913,551,938,569,545,814,355,815,245,379,435,707,903,350,194,60,833,250,508,540,608,862,260,916,192,488,533,745,681,588,812,855,517,564,307,451,575,623,770,354,179,877,643,837,783,847,351,808,872,311,403,375,751,687,426,824,888,974,747,2,958,683,829,617,367,343,957,232,381,387,271,632,320,286,874,788,532,959,371,248,475,523,782,846,920,798,438,889,84,243,334,810,1,183,503,830,62,570,546,123,937,315,333,437,478,11,470,446,431,178,190,671,735,146,359,905,781,845,383,423,789,907,603,875,189,795,942,731,246,746,682,667,43,218,931,90,415,719,655,797,281,327,142,138,725,832,661,727,854,663,929,86,717,511,653,821,885,927,434,318,6,94,291,299,193,175,978,464,55,210,962,611,646,304,495,980,39,642,335,106,762,26,733,439,669,150,20,690,754,790,698,454,710,471,447,686,186,945,547,571,535,217,750,651,715,706,238,939,813,619,595,834,640,519,301,861,616,769,538,282,101,221,534,516,242,625,322,200,901,211,659,723,241,319,122,226,99,914,296,851,341,269,477,48,50,58,75,76,110,111,23,349,293,525,537,878,42,215,417,779,843,453,473,521,185,774,295,73,258,838,702,254,283,949,811,673,413,737,285,329,240,802,866,170,162,541,261,37,766,166,331,154,228,158,7,225,482,474,522,767,265,703,449,209,234,890,263,321,259,819,883,252,430,450,279,529,919,201,9,277,382,574,622,251,935,289,922,893,325,386,361,859,326,257,109,911,266,278,14,317,550,975,338,966,302,323,33,826,253,262,347,275,738,674,803,867,807,871,573,621,950,313,305,358,233,433,429,805,869,758,694,17,406,786,247,410,330,390,19,549,894,92,553,102,365,629,422,578,8,10,787,499,366,481,18,979,113,287,442,567,459,491,405,374,599,467,255,635,370,309,297,554,849,306,3,15,765,559,591,5,118,777,841,378,701,12,298,68,314,369,93,577,693,757,373,507,742,678,487,294,970,377,785,607,310,337,965,587,463,74,290,857,222,394,954,539,135,563,581,112,389,35,414,4,677,741,53,104,134,822,886,34,393,953,933,125,136,13,421,542,850,345,778,842,87,273,98,274,346,45,806,870,357,582,858,120,934,79,639,515,615,52,41,16,70,114,32,30,127,128,97 |
| **UMCFS** | 128,408,407,107,981,37,16,96,409,345,117,526,109,39,273,31,134,36,133,113,12,399,402,364,125,889,95,97,626,88,53,4,121,67,159,362,34,7,891,484,69,70,401,55,633,43,26,410,17,201,583,910,803,875,635,418,535,204,135,412,123,56,86,78,861,22,21,873,398,196,82,269,5,66,341,785,35,77,47,356,45,387,864,660,9,697,119,30,724,936,628,798,375,630,462,957,904,354,343,203,136,1,108,127,93,14,105,33,124,71,908,971,802,65,81,57,52,816,799,94,42,130,698,867,282,276,348,68,528,211,892,98,935,193,906,463,782,326,83,804,126,74,353,89,99,10,102,84,63,405,112,862,926,118,120,485,541,944,868,106,913,122,525,92,18,72,809,419,115,286,846,13,666,232,949,764,427,51,534,700,132,584,157,417,890,827,738,674,294,192,11,433,730,609,509,200,866,212,958,950,441,810,32,416,636,923,858,928,625,851,411,930,564,937,85,38,650,116,101,814,404,160,327,800,533,255,79,91,714,722,73,658,662,87,114,295,726,786,397,20,667,527,54,103,388,970,302,812,40,361,942,403,811,898,790,582,856,248,363,544,909,195,393,64,778,762,434,191,432,24,177,907,943,171,922,840,897,920,344,272,2,855,581,741,784,905,877,536,819,677,368,297,223,19,494,899,848,350,206,883,911,529,629,900,444,59,903,309,961,306,694,880,186,487,587,758,216,315,772,384,631,442,531,446,470,820,977,516,853,288,602,559,808,884,591,927,465,963,305,775,872,179,953,612,946,281,313,258,969,876,912,349,277,745,681,675,732,919,219,420,385,739,646,710,252,796,668,822,243,190,224,365,376,842,370,711,437,951,767,703,555,850,333,391,569,545,896,455,445,469,267,229,886,301,562,430,237,254,372,502,265,486,414,247,586,307,947,198,311,616,836,832,453,188,938,513,495,27,511,595,699,815,613,422,426,503,468,183,194,893,400,300,788,299,603,314,611,189,459,312,620,520,491,240,425,830,170,293,974,831,162,510,493,373,339,332,967,264,280,634,310,141,137,683,901,390,291,381,145,202,515,939,771,801,615,833,29,199,167,231,731,514,379,639,396,371,956,837,747,652,826,680,744,292,828,380,737,673,221,296,28,166,761,568,270,824,358,151,335,439,945,695,759,888,185,914,6,182,147,932,617,154,902,61,367,342,23,25,839,959,44,239,499,594,852,818,882,454,952,865,879,428,647,723,659,187,359,780,461,844,218,347,275,480,763,225,423,131,271,716,129,563,246,806,973,870,155,49,773,233,355,90,934,576,256,624,220,104,406,746,298,542,921,278,169,245,215,918,656,80,290,435,860,825,15,210,776,205,916,146,552,394,328,392,954,599,962,158,512,457,489,259,303,207,501,649,338,604,966,821,885,274,661,262,978,346,791,260,242,476,543,524,482,795,483,530,250,729,163,682,665,48,50,8,58,75,76,779,110,230,111,570,546,725,382,857,547,571,330,386,152,287,161,234,41,100,377,208,153,676,383,980,925,748,217,713,964,684,940,720,519,627,835,770,366,664,140,325,740,214,369,452,249,610,960,863,197,843,236,813,558,590,228,180,915,209,619,443,60,421,648,458,792,184,490,213,395,955,789,585,451,854,728,475,561,235,551,523,777,783,841,575,623,657,178,721,847,517,244,941,573,3,621,222,144,285,948,337,549,849,138,46,560,592,226,148,965,142,466,329,473,521,481,449,257,460,793,781,492,357,823,172,165,887,845,266,794,933,504,757,693,415,787,447,471,261,580,817,881,284,838,805,156,352,334,869,859,651,289,464,149,431,807,894,871,181,929,669,456,374,733,139,532,663,601,283,438,143,241,679,743,917,874,717,653,727,895,655,719,588,931,632,308,769,672,704,253,736,924,797,440,316,735,671,477,168,336,150,734,670,238,268,566,972,979,878,251,496,572,548,429,488,596,718,654,834,227,279,472,448,304,436,742,618,579,678,829,378,351,164,774,518,715,389,556,765,467,701,577,645,712,614,593,413,557,640,589,360,702,709,479,766,567,696,752,478,688,760,450,578,474,522,553,755,691,637,975,550,768,638,574,622,554,565,692,756,687,708,644,62,751,497,498,598,643,707,749,505,685,263,540,976,539,597,605,340,968,507,607,424,537,538,606,506,508,608,706,642,689,753,750,686,705,500,641,331,318,174,754,690,600,322,320,323,324,319,173,176,321,175,317 |
| **UDFSA** | 701,413,429,353,677,977,197,241,933,97,295,633,420,273,112,393,403,51,713,864,419,41,39,953,417,34,117,957,106,275,404,361,43,426,63,16,103,355,481,88,410,31,278,326,789,7,425,60,741,116,286,409,345,30,119,269,125,42,657,32,107,126,401,21,80,92,132,83,861,629,133,122,27,121,787,70,402,255,100,95,81,40,529,405,356,47,398,130,965,946,94,72,411,104,74,407,325,693,634,3,721,428,79,124,631,134,757,44,412,105,53,91,337,635,284,136,786,5,24,859,788,102,363,290,108,214,248,82,406,649,85,118,945,115,890,785,69,77,330,96,262,189,889,73,137,531,123,90,341,347,843,779,427,65,362,87,851,101,809,958,17,109,418,525,84,98,724,821,885,625,128,852,114,354,209,573,621,120,844,663,289,158,780,655,549,847,783,416,628,660,242,799,952,925,719,433,37,665,729,386,442,727,194,528,400,828,210,519,482,619,45,11,93,681,141,55,408,716,246,129,860,652,131,584,740,526,746,745,178,54,800,626,735,327,776,473,863,211,676,521,388,849,206,19,939,931,294,449,213,682,582,671,961,796,618,285,38,777,518,841,89,979,138,542,212,26,636,146,142,734,930,670,259,791,365,700,934,384,845,928,377,781,186,462,282,981,67,293,855,198,342,793,980,432,718,350,254,915,534,313,182,61,563,654,305,798,764,811,662,192,148,862,297,13,258,18,726,937,66,144,463,304,397,140,581,969,906,238,329,415,33,35,517,270,369,873,78,127,866,802,364,892,22,805,869,46,617,857,936,913,309,52,884,820,261,470,10,149,669,99,204,29,874,964,535,438,28,840,230,334,190,157,570,303,277,381,810,431,9,546,511,748,191,439,421,725,154,253,935,387,348,170,446,135,257,901,547,733,661,394,272,344,929,954,373,357,586,316,335,627,447,471,850,950,276,978,527,944,653,684,588,145,291,778,587,842,184,717,488,897,902,177,562,57,564,1,541,49,571,296,383,359,920,742,674,738,962,903,910,250,203,36,912,260,761,853,560,592,504,697,604,487,492,460,558,590,382,941,612,202,199,512,256,280,904,279,328,292,4,6,86,308,464,948,815,71,221,236,315,921,399,486,288,181,812,668,732,611,352,762,698,816,56,496,596,678,301,911,813,919,797,264,243,858,298,219,838,548,602,331,503,358,332,572,951,872,244,808,448,310,263,905,143,207,247,147,312,265,437,739,545,569,252,675,583,445,469,472,819,883,222,333,139,543,314,422,283,610,922,970,630,520,926,924,458,490,790,423,229,299,306,620,68,942,714,650,300,603,502,877,730,302,366,666,485,947,530,343,747,683,594,15,891,346,886,822,160,837,888,824,491,459,771,311,271,274,349,658,722,591,559,180,268,440,510,25,336,200,151,561,940,183,585,513,287,461,64,963,466,150,772,396,956,807,871,879,959,228,220,374,495,825,223,307,226,457,489,672,414,736,152,494,234,818,882,801,865,59,193,195,908,694,932,477,923,758,367,441,484,172,550,595,763,914,938,769,972,656,773,338,966,918,720,827,971,389,699,664,557,589,794,680,728,744,973,613,900,450,224,848,784,775,909,795,378,208,806,870,217,792,266,153,765,695,533,218,759,171,483,839,532,949,632,281,225,196,622,574,823,887,267,516,188,201,468,522,474,435,568,179,454,832,169,451,967,339,878,251,216,453,577,673,616,899,8,737,156,955,395,249,814,553,205,12,648,976,523,475,434,712,370,826,566,544,893,185,743,233,723,679,551,774,659,804,868,975,817,881,927,715,536,651,623,575,554,385,165,830,770,831,907,231,833,166,351,159,895,567,835,168,23,232,688,752,478,430,565,376,974,509,164,856,465,162,876,113,880,161,424,898,645,829,372,227,163,782,846,155,709,476,524,894,614,556,696,834,360,867,803,760,609,646,710,467,2,245,624,576,379,854,187,436,455,896,444,515,167,960,637,235,711,702,640,390,647,615,443,667,237,638,766,692,756,916,731,968,340,601,687,751,514,768,704,836,375,750,452,686,479,875,14,392,703,552,500,644,600,215,767,240,917,501,480,708,580,598,685,593,749,368,578,20,371,943,690,754,498,689,753,755,691,391,493,456,380,579,62,499,599,497,707,642,643,706,597,641,705,555,639,320,508,606,608,176,50,111,75,58,110,48,76,506,318,239,507,505,607,174,537,324,605,322,323,540,317,539,321,175,538,173,319 |
| **LLBCFS** | 981,407,408,406,625,525,108,121,347,275,81,91,130,132,124,116,127,827,775,405,92,115,29,269,341,133,129,131,343,633,271,28,94,128,114,44,77,90,79,103,87,102,105,24,923,101,126,27,367,583,375,63,109,401,117,475,523,575,623,551,451,99,339,967,404,971,759,695,944,125,123,83,120,531,763,631,30,951,362,699,626,82,379,26,104,122,526,89,134,928,371,361,80,93,732,509,668,628,739,675,528,395,955,34,106,892,412,909,609,652,716,387,501,40,402,435,344,272,78,743,727,663,679,428,655,719,270,931,773,619,519,342,356,16,601,761,137,697,38,348,903,937,88,276,636,141,98,410,825,901,799,635,735,671,939,921,783,847,12,972,13,603,787,359,634,349,483,660,485,724,423,961,96,352,457,489,409,364,855,503,969,386,119,672,736,661,725,913,796,135,949,817,881,95,929,493,810,717,653,908,681,585,745,617,399,932,557,589,517,917,326,948,673,241,737,656,351,720,544,620,18,897,520,84,85,856,664,535,728,785,890,22,907,400,21,25,20,51,840,789,593,853,935,439,282,447,471,547,571,335,859,527,627,158,781,845,812,33,788,247,779,843,145,791,851,279,733,669,933,891,346,274,900,138,784,848,632,142,532,65,299,889,286,880,804,868,311,536,2,682,746,437,242,924,146,15,864,205,811,385,263,331,333,52,947,327,291,298,3,310,19,977,419,611,201,397,569,545,957,193,543,54,7,445,469,55,800,157,595,136,511,185,69,936,273,381,170,345,440,495,813,916,443,899,293,281,461,819,883,336,910,963,874,824,888,199,374,107,315,301,444,541,464,425,572,548,448,472,816,802,866,863,919,287,368,360,533,849,140,420,66,777,841,809,5,154,292,144,424,32,826,366,249,388,350,288,383,792,314,305,42,915,325,283,307,823,887,860,306,9,186,938,952,309,313,618,476,524,518,857,353,740,576,624,676,861,264,56,958,218,68,418,839,234,564,930,662,726,950,57,332,563,452,280,552,774,905,674,738,297,807,871,718,654,657,801,865,376,721,285,786,384,200,875,940,340,968,278,744,760,354,780,844,277,696,680,649,762,713,561,698,852,764,734,195,17,188,670,463,10,700,574,622,474,522,711,100,647,748,284,559,591,815,510,684,196,586,502,248,396,956,587,550,403,328,862,450,426,4,836,772,226,906,191,245,459,491,231,380,610,382,197,206,23,436,570,546,446,470,139,262,438,462,159,898,487,61,378,978,912,486,143,251,334,210,850,790,581,558,590,970,602,769,365,902,148,838,458,490,427,778,842,265,190,166,512,60,370,612,70,373,925,962,300,837,922,256,153,782,846,959,398,858,355,194,484,979,562,192,877,46,372,162,391,433,169,588,337,965,879,295,214,312,920,573,621,771,934,246,160,182,181,204,260,171,488,494,549,473,521,338,966,481,330,534,266,35,757,693,629,296,918,854,212,873,818,882,980,150,253,584,209,579,442,416,449,555,560,592,316,53,468,59,460,492,529,565,257,814,960,302,215,244,942,758,198,694,914,243,946,211,504,482,465,604,594,878,479,747,431,411,189,683,377,308,267,542,820,884,876,803,867,904,303,6,797,254,357,658,729,369,665,261,255,151,421,722,363,177,187,432,252,259,294,415,911,178,224,828,250,650,714,203,149,152,165,183,358,147,926,568,513,258,155,71,567,232,806,870,422,645,8,289,709,730,666,798,767,238,496,97,821,885,36,808,872,172,776,596,441,687,751,417,770,1,236,973,202,230,703,118,945,835,455,794,964,161,742,64,229,678,217,582,329,613,268,793,530,630,466,220,290,805,869,213,156,67,467,394,954,514,566,167,184,434,896,833,207,228,208,216,11,829,163,795,515,834,615,614,685,749,222,712,648,393,953,219,677,741,14,179,221,691,755,454,974,456,667,731,304,233,927,223,943,235,895,168,225,453,237,553,659,723,73,715,556,651,413,180,392,478,429,164,477,516,768,894,822,886,616,74,704,646,710,707,643,975,480,976,941,580,497,753,689,830,688,752,414,831,240,637,554,597,702,430,766,641,705,765,390,578,750,893,686,701,756,692,832,639,577,389,638,498,599,499,598,239,227,644,708,500,690,754,600,640,62,642,706,318,505,48,50,58,75,76,110,111,605,323,539,322,506,606,320,174,508,324,317,608,507,607,321,176,540,537,319,175,173,538,41,39,31,86,112,37,113,72,45,47,49,43 |
| **CSFA** | 105,90,33,34,63,101,92,8,10,108,5,74,99,102,114,85,130,132,919,153,157,639,678,152,267,890,304,629,88,666,225,809,80,148,197,933,59,346,256,413,281,449,909,734,28,554,211,779,843,513,588,340,920,968,158,754,516,898,690,381,543,711,113,29,577,444,453,697,650,835,293,935,357,787,126,216,905,210,562,47,191,49,777,841,799,644,483,39,600,46,606,665,97,183,412,511,437,48,50,58,75,76,110,111,661,14,19,747,284,507,166,579,124,969,260,377,382,388,972,631,343,636,205,332,806,870,68,928,235,723,351,296,485,441,803,867,202,899,147,552,584,780,844,922,93,421,265,632,672,746,254,925,493,962,180,324,673,239,764,702,233,794,569,503,545,257,349,426,827,231,710,236,601,18,864,462,117,822,886,323,364,860,952,104,605,557,589,403,45,445,469,849,252,282,31,194,733,477,855,193,288,179,795,135,422,433,635,25,578,24,729,184,95,122,501,879,573,621,700,374,976,634,530,607,91,319,946,207,94,830,107,387,65,174,201,315,728,408,41,40,89,654,713,828,155,763,405,615,429,771,667,856,250,641,289,739,664,459,491,725,737,119,506,529,301,488,509,298,496,264,307,11,565,394,954,316,873,38,392,196,837,61,770,134,331,832,353,72,439,858,57,427,120,749,538,944,893,347,460,492,286,900,64,833,432,537,708,599,81,162,170,156,373,901,927,15,60,970,533,176,395,955,802,866,741,137,175,853,368,564,249,612,123,731,334,420,6,62,182,817,881,112,851,32,212,819,883,384,222,430,86,560,592,649,767,904,549,232,77,781,845,706,468,949,807,871,638,425,818,882,424,812,299,434,270,385,610,852,907,857,16,224,151,268,786,508,154,942,862,160,220,647,238,273,959,645,714,804,868,805,869,979,314,251,322,675,525,574,622,532,854,2,248,815,960,505,526,950,313,141,450,327,778,842,234,276,361,934,801,865,128,325,721,758,722,587,519,30,367,730,796,402,720,487,585,926,791,442,378,732,42,823,887,575,623,1,974,651,897,473,521,486,677,4,921,912,371,149,766,964,838,409,820,884,576,624,693,204,742,674,253,957,321,344,481,208,82,980,136,145,100,438,391,534,36,230,724,335,125,173,380,338,966,369,69,596,306,527,679,393,953,759,941,178,484,658,227,685,657,816,475,523,568,200,169,455,161,35,229,750,735,915,682,226,440,514,788,614,295,78,9,814,255,463,376,240,358,757,310,237,269,454,278,375,604,625,67,292,383,642,878,669,168,528,561,404,687,518,279,302,813,613,309,448,889,472,707,917,457,489,671,203,850,435,541,688,246,27,411,127,198,406,129,131,21,740,87,83,186,743,96,414,961,71,963,775,458,490,116,782,846,498,218,20,903,195,271,189,355,345,397,839,892,447,471,755,691,133,648,13,808,872,602,138,167,379,595,718,628,943,626,683,692,756,259,911,570,546,738,891,716,217,792,470,446,834,416,540,275,466,436,840,981,906,362,719,877,73,443,341,389,896,680,228,17,37,354,66,494,670,262,266,668,646,342,300,694,242,452,370,245,263,115,977,784,848,939,303,423,328,214,504,366,940,535,558,590,652,776,695,350,479,396,956,146,655,337,965,914,103,407,598,586,772,159,684,163,171,821,885,206,500,26,283,185,936,978,55,390,326,712,810,593,320,386,863,894,23,398,597,659,640,609,875,221,918,924,294,419,285,372,79,495,662,769,704,916,261,544,748,499,365,553,551,726,563,291,188,400,797,274,971,482,290,932,913,56,861,550,975,54,70,330,701,611,633,223,880,333,308,547,571,474,522,219,656,415,465,280,736,923,660,973,908,336,594,696,510,811,800,948,751,464,192,773,681,476,524,618,199,789,359,699,258,902,520,215,556,762,318,768,829,637,825,12,52,121,930,456,744,874,172,497,164,241,630,617,947,945,753,689,785,44,620,363,317,826,480,951,399,3,187,150,7,311,512,929,297,698,143,567,517,312,752,109,608,209,352,243,329,43,709,619,686,580,765,144,305,339,876,967,177,715,958,467,581,360,348,583,555,798,895,431,774,22,824,888,53,836,106,783,847,705,428,277,582,502,142,536,451,539,703,140,761,760,478,531,717,118,572,548,84,653,356,213,401,559,591,244,542,418,515,745,98,461,616,566,51,676,272,190,139,603,859,793,910,790,417,165,247,643,831,663,627,938,410,937,931,727,287,181 |
| **FSASL** | 408,635,981,636,407,625,536,525,416,432,626,633,526,533,132,130,535,124,63,405,352,406,401,356,129,131,428,440,96,336,402,517,634,617,92,354,572,548,472,448,421,30,929,204,357,669,717,653,725,733,661,469,445,569,545,280,93,212,294,882,818,437,422,770,264,333,332,430,918,814,358,790,672,736,236,534,220,426,17,364,876,853,362,415,456,156,295,781,845,414,160,168,433,211,262,782,846,360,810,228,424,102,227,411,208,203,431,278,791,349,255,833,293,254,292,235,330,847,783,466,216,877,237,259,215,167,875,404,720,155,392,656,864,556,932,881,817,289,258,219,662,423,726,328,222,106,938,16,361,480,728,286,948,359,193,239,856,331,664,789,127,862,269,654,718,893,578,580,513,771,341,6,117,253,196,930,288,207,390,515,772,719,655,221,291,692,756,663,467,727,183,579,233,214,688,615,931,478,334,613,177,438,752,62,429,702,412,566,766,454,616,296,784,848,644,619,519,53,165,457,489,217,108,263,830,516,350,866,802,804,868,854,708,159,883,819,81,638,446,470,554,166,434,861,640,389,224,754,690,199,689,753,620,479,507,250,537,607,750,149,686,706,642,701,538,270,256,22,546,570,539,499,555,705,229,565,179,342,606,704,599,508,641,608,540,768,528,506,567,605,769,765,896,505,691,755,553,520,153,637,917,618,685,497,413,973,895,749,884,820,707,577,643,195,910,735,154,455,734,465,468,831,894,670,671,257,218,976,114,188,811,391,598,518,371,628,836,639,812,703,600,240,500,767,751,410,687,832,115,597,975,920,498,226,800,279,351,453,61,337,965,945,590,558,231,974,245,15,287,961,711,164,19,225,13,477,150,757,329,919,693,792,161,379,290,163,514,873,958,213,162,261,647,244,180,816,14,325,21,962,937,436,277,11,12,808,872,815,409,909,557,589,184,375,327,197,223,185,829,326,209,614,182,855,960,813,870,806,367,260,232,234,363,571,547,447,471,834,835,885,821,568,152,251,246,192,977,238,191,880,230,940,198,978,451,809,241,759,377,551,695,158,475,523,335,157,838,248,189,439,623,575,887,823,865,801,121,20,869,805,368,939,874,709,425,372,190,901,369,591,559,840,964,205,339,967,200,549,449,837,645,365,194,863,490,458,491,459,710,69,285,344,181,573,621,282,646,169,903,178,878,210,879,170,276,116,151,272,495,980,592,560,435,57,284,427,648,252,417,68,712,485,355,373,52,521,473,348,186,629,376,187,595,65,84,206,104,366,242,871,807,31,273,460,492,586,911,345,24,403,867,803,529,824,888,51,172,148,249,66,913,748,374,684,897,383,247,118,380,171,493,67,902,631,56,370,531,463,461,54,18,563,742,946,678,587,105,201,963,562,378,338,966,147,758,694,202,394,954,503,593,281,55,462,596,49,822,886,912,64,496,487,353,144,25,140,283,908,899,681,696,760,745,387,302,603,88,101,145,486,310,5,585,243,42,298,314,611,746,306,682,947,955,395,679,892,594,141,743,898,968,340,788,137,890,135,959,550,511,957,839,85,9,552,450,741,677,420,576,624,979,923,509,452,142,128,476,524,609,138,574,622,1,494,612,512,953,393,146,971,501,522,474,588,79,713,649,381,657,914,721,60,601,418,561,313,91,799,307,305,481,464,482,315,935,309,297,311,904,488,10,126,610,385,680,787,744,915,564,346,301,798,274,299,889,382,275,347,44,386,936,738,2,683,747,674,510,604,303,504,797,925,419,122,602,143,139,502,900,950,304,103,316,23,956,396,388,97,739,675,785,38,441,94,859,133,82,673,308,737,300,951,7,630,312,134,27,34,87,90,949,125,627,530,779,843,584,527,8,891,851,384,397,828,4,3,483,98,933,665,729,59,544,28,740,676,36,484,83,442,123,849,41,583,841,777,763,80,109,860,658,100,77,722,582,780,844,921,972,399,852,776,724,660,650,89,714,857,796,761,697,26,444,632,858,916,850,907,778,842,343,71,271,532,716,652,29,581,266,72,37,265,906,107,926,78,699,99,795,698,762,928,952,541,943,786,922,35,667,119,40,398,827,700,731,443,39,32,927,764,934,33,730,666,267,268,775,668,732,74,924,43,794,969,73,715,941,651,95,46,944,70,774,723,659,905,47,136,86,120,543,793,826,942,45,825,542,112,773,970,113,400,318,323,320,322,317,174,48,110,75,58,111,50,76,324,321,319,173,175,176 |
| **UFSIL** | 978,979,68,977,17,65,135,811,13,660,113,800,373,367,67,45,203,112,971,204,9,969,28,836,41,403,7,86,759,937,2,428,88,481,20,798,574,343,31,409,128,399,51,443,890,37,858,411,223,245,889,120,716,232,84,429,349,265,930,928,178,933,855,801,102,541,819,25,824,382,400,361,806,582,972,370,275,546,907,465,64,103,865,835,122,219,623,250,101,722,54,85,280,171,913,104,970,119,16,60,947,87,948,200,401,510,957,364,273,431,657,278,23,550,80,942,634,562,190,585,898,587,66,444,90,74,229,158,181,34,466,97,882,387,904,792,934,542,207,845,1,864,247,906,259,531,791,900,162,668,485,879,654,527,253,100,602,335,543,624,584,861,69,483,325,189,627,846,884,10,81,271,385,576,123,625,789,406,420,298,12,36,183,575,196,402,525,435,513,354,951,151,4,32,347,83,658,773,781,561,209,560,293,384,257,6,965,630,170,210,107,671,26,473,521,218,226,154,788,297,683,115,545,828,109,626,272,56,141,504,745,39,437,594,352,285,211,327,700,301,938,620,55,714,243,875,851,199,305,782,950,149,195,108,235,282,304,192,850,943,91,269,434,892,601,380,771,963,652,114,680,795,838,732,544,442,925,89,213,197,198,944,368,333,42,860,927,396,116,283,956,841,777,650,682,939,803,867,388,854,350,663,945,486,57,341,532,21,70,441,215,518,536,177,840,727,936,883,95,188,410,729,869,475,523,220,785,474,804,868,695,14,94,79,147,136,334,129,131,529,932,142,902,33,256,843,779,960,105,61,342,289,667,134,681,677,126,187,588,15,316,299,270,157,357,633,720,5,309,887,823,763,326,30,559,857,629,193,959,797,78,573,621,946,172,886,635,99,922,684,699,72,337,918,775,44,29,724,363,926,362,365,469,125,908,366,852,312,535,728,495,809,308,433,260,958,451,967,910,656,351,279,733,871,923,747,490,47,762,533,246,255,121,672,917,405,980,117,291,610,463,96,63,678,721,723,784,426,805,952,769,526,328,417,356,276,191,288,145,874,935,920,853,464,339,493,502,547,160,49,143,35,452,698,697,571,208,379,484,71,919,436,509,234,424,407,815,564,519,38,744,153,52,138,412,24,438,18,842,778,693,432,3,222,167,274,628,713,839,592,331,897,281,820,873,632,292,661,310,961,844,450,758,306,675,360,770,182,557,589,810,494,82,517,140,53,59,313,185,914,446,98,719,202,241,482,315,726,569,353,862,837,880,591,817,332,790,619,423,530,655,416,398,93,746,408,248,295,127,870,748,8,761,258,217,314,636,180,344,221,92,903,355,651,307,300,268,46,244,338,458,472,901,774,799,676,263,731,877,371,558,159,757,296,586,155,725,491,462,184,739,345,876,439,427,631,284,609,374,528,787,881,19,457,489,418,302,962,303,137,470,665,133,287,264,891,11,262,814,822,201,148,796,168,653,649,813,359,22,834,905,964,802,866,346,336,164,139,445,425,471,899,859,144,694,786,487,666,659,231,277,717,476,551,358,397,715,669,165,570,736,375,524,603,730,812,826,863,674,735,106,377,118,329,27,818,783,807,378,821,885,461,294,915,816,169,40,130,132,383,966,448,549,376,43,194,953,718,611,760,849,848,163,888,249,909,488,421,827,924,225,740,261,230,238,931,916,590,522,670,311,73,664,563,501,156,161,77,847,968,520,581,330,152,369,921,738,340,878,617,404,662,618,622,776,166,124,348,286,534,206,772,856,742,741,552,227,224,440,150,372,572,266,386,422,447,548,940,583,593,251,780,734,696,242,511,205,381,492,419,911,233,764,974,929,496,565,976,394,825,794,459,393,453,267,449,413,254,146,512,743,516,252,566,214,239,236,896,710,833,456,216,454,455,613,646,212,616,460,290,768,975,468,679,480,912,503,237,553,415,895,704,973,554,477,831,793,954,640,894,596,186,595,949,673,612,647,604,941,240,737,414,711,893,615,567,228,430,808,872,830,515,392,478,580,832,568,556,179,467,395,955,685,614,749,688,752,514,479,62,555,648,692,756,639,645,641,705,389,644,577,689,753,499,708,599,754,690,709,578,540,600,750,686,607,829,507,500,390,712,508,702,537,706,498,539,598,538,506,497,755,691,608,701,597,605,579,606,642,505,703,637,765,751,687,766,643,707,391,767,638,58,111,48,75,50,110,76,320,176,323,322,175,324,174,317,321,319,173,318,981 |
| **LASSO** | 174,214,797,542,211,189,385,11,232,14,824,912,786,581,957,3,959,197,908,97,409,73,427,15,109,890,404,35,39,82,401,40,93,419,41,70,406,52,122,45,981,89,373,121,888,1,2,4,5,6,7,8,10,12,13,16,17,18,19,20,21,22,23,24,25,26,27,28,29,31,32,33,34,36,37,42,43,44,46,47,48,49,50,53,54,55,56,57,58,60,62,64,65,66,67,68,71,72,74,75,76,79,81,84,85,86,87,90,91,92,94,95,98,99,100,101,102,104,105,106,108,110,111,112,113,115,116,118,120,123,125,126,127,128,129,130,131,132,133,134,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,164,165,166,167,168,169,170,172,173,176,177,179,180,181,182,183,184,185,186,187,188,190,191,192,193,194,195,198,199,200,202,203,205,206,207,209,210,212,213,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,233,234,235,236,237,238,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,258,259,260,261,262,263,264,265,266,268,269,270,271,272,273,274,275,276,277,278,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,294,295,296,297,298,299,300,301,302,303,304,305,306,307,308,309,310,311,312,313,314,315,316,317,318,319,320,321,322,323,324,325,326,327,328,329,330,331,332,333,334,335,336,337,338,339,340,341,342,343,344,345,346,347,348,349,350,351,352,353,354,355,356,357,358,359,360,361,363,364,365,366,367,368,369,370,371,372,374,375,376,377,378,379,380,381,382,383,384,386,387,388,389,390,391,392,393,394,395,396,397,398,399,400,402,403,405,407,413,414,415,416,417,418,420,421,422,423,424,425,426,428,429,431,432,433,434,436,437,438,439,440,441,442,443,444,445,446,447,448,449,450,451,452,453,454,455,456,457,458,459,460,461,463,464,465,466,467,468,469,470,471,472,473,474,475,476,477,478,479,480,481,482,483,484,485,486,487,488,489,490,491,492,493,494,495,496,497,498,499,500,501,502,503,504,505,506,507,508,509,510,511,512,513,514,515,516,517,518,519,520,521,522,523,524,525,526,527,528,529,530,531,532,533,534,535,536,537,538,539,540,541,543,544,545,546,547,548,549,550,551,552,553,554,555,556,557,558,559,560,561,562,563,564,565,566,567,568,569,570,571,572,573,574,575,576,578,579,580,582,583,584,585,586,587,588,589,590,591,592,593,594,595,596,597,598,599,600,601,602,603,604,605,606,607,608,609,610,611,612,613,614,615,616,617,618,619,620,621,622,623,624,625,626,627,628,629,630,631,632,633,634,635,636,638,639,640,641,642,643,644,645,646,647,648,649,650,651,652,653,654,655,656,657,658,659,660,661,662,663,664,665,666,667,668,669,670,671,672,673,674,675,676,677,678,679,680,681,682,683,684,685,686,687,688,689,690,691,692,693,694,695,696,697,698,699,700,701,702,703,704,705,706,707,708,709,710,711,712,713,714,715,716,717,718,719,720,721,722,723,725,726,727,728,729,730,731,732,733,734,735,736,737,738,739,740,741,742,743,744,745,746,747,748,749,750,751,752,753,754,755,756,757,758,759,760,761,762,763,764,765,766,767,768,769,770,771,772,773,774,775,776,777,778,779,780,781,782,783,784,785,787,788,790,791,792,793,795,796,798,799,801,802,803,804,805,806,807,808,809,810,811,812,813,814,815,816,817,818,819,820,821,822,825,826,827,828,829,830,831,832,833,834,835,836,837,838,839,840,841,842,843,844,845,846,847,848,849,850,851,852,853,854,855,856,857,858,859,860,861,862,863,864,865,866,867,868,869,870,871,872,873,874,875,876,877,878,880,881,882,883,884,885,886,889,891,892,893,894,895,896,897,898,899,900,901,902,903,904,905,906,907,909,910,911,913,914,915,916,917,918,919,920,921,922,923,924,925,926,927,928,929,930,931,932,933,934,935,936,937,938,939,940,941,942,943,944,945,946,947,948,949,950,951,952,953,954,955,956,958,960,961,962,963,964,965,966,967,968,969,970,971,972,973,974,975,976,977,978,979,980,171,408,823,69,117,63,879,201,30,107,83,114,80,887,77,103,267,78,410,412,9,38,239,577,362,96,135,51,119,789,88,124,59,208,411,163,204,462,196,435,178,430,800,724,61,794,637,175 |

**Table 4**. Sequential arrangements provided by different FSAs for dataset CSD01.

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| **FSA** | **Sequential feature ranked by FSA** |
| **ILFS** | 1727,1663,1340,1404,1888,148,1128,683,747,143,1123,139,1119,1919,739,1168,188,1157,177,675,1158,178,144,140,1120,1124,1932,892,1720,1656,146,1126,1422,840,1446,951,431,424,1776,748,940,923,684,1162,182,61,187,1167,888,824,664,728,1420,1316,1242,1209,229,145,1125,221,1201,1743,681,745,1416,583,1652,1716,1809,1644,1708,1636,1700,620,520,407,676,740,1880,205,1185,1679,1912,972,1252,1399,1528,1552,1725,1661,913,1428,1452,1931,1492,720,656,711,1338,1041,578,932,228,1208,496,855,780,844,928,4,1263,755,691,1808,1163,183,332,1819,198,1178,1464,1266,1627,1583,344,272,1267,1920,180,1160,264,392,504,1256,1241,1408,1664,672,736,1244,1324,440,336,1435,1328,377,612,426,397,432,137,141,1117,1121,803,867,181,1161,303,287,1728,1600,1500,898,1836,1834,495,1177,197,549,1447,716,563,1766,1402,1516,1308,374,732,147,1127,1575,896,1655,1653,1717,314,839,21,1871,555,668,652,821,885,611,1940,907,1719,1049,830,568,369,1033,53,309,904,1820,900,1872,511,1680,1744,952,1352,512,595,643,448,472,548,572,1320,1948,60,827,1339,1322,408,1342,1875,460,492,560,592,1884,384,835,1260,916,254,500,1137,157,1250,880,468,1611,1770,600,1936,1376,980,1197,217,175,1237,1926,836,1511,160,1140,1380,1691,891,1648,1233,1943,911,1232,1855,1955,539,1712,1240,222,1202,1929,799,674,738,1282,1166,186,503,1312,153,1133,282,1628,156,1136,872,808,1876,1891,202,1182,1886,258,1273,629,409,1483,1156,912,1676,1740,1148,168,401,1040,775,1002,1369,467,66,647,1591,687,1261,1368,852,1899,1520,908,874,1883,1145,165,628,1381,1356,535,1853,1939,608,1547,1239,1198,218,1367,283,588,1937,1924,399,1918,1629,528,441,1788,1852,1930,1618,508,1854,319,488,294,625,1623,1662,1726,816,1403,644,1284,1513,751,1847,1783,1305,708,707,1650,1842,1269,1230,905,1433,776,1896,1517,1360,286,482,1235,1812,596,1045,1714,463,478,919,525,950,1692,1582,1859,1881,834,1894,398,1223,185,1165,1671,1735,215,1195,1957,402,373,449,1718,1297,1959,1190,210,1307,1592,1200,220,1508,1654,1806,615,702,679,1816,1122,1118,138,142,1258,527,201,1181,1608,1535,995,1764,1828,1616,810,246,1810,879,1754,1784,1848,765,959,1314,1418,1275,1843,1149,1141,169,161,1567,897,899,1768,1131,151,914,280,1188,208,1857,1792,1155,688,992,682,746,974,1332,1138,158,1042,1672,1736,1693,515,1762,1826,584,184,1164,788,763,428,1642,1706,1180,200,1432,1532,1635,1910,627,1756,1951,1893,1667,976,1226,388,473,521,906,785,1860,1533,1034,692,756,1643,1707,743,701,152,1132,281,1952,796,20,971,657,721,326,533,1556,1604,1047,604,1678,766,828,1925,1436,1515,1268,15,1389,1742,250,811,1504,1456,1475,873,1587,649,1221,806,870,1752,1344,1536,949,1283,1863,1799,219,1199,1357,1461,239,1219,1813,713,241,1879,1306,1634,1698,1626,1681,1491,637,1159,179,415,1364,895,1690,1903,1564,809,348,1264,820,884,297,418,1867,1803,1687,1537,1569,1915,603,279,1699,1835,370,1958,752,243,887,823,772,173,1281,1757,1821,288,1804,1868,321,234,1214,459,491,977,192,1172,699,800,1944,1487,1584,1815,1482,376,1398,11,1550,1526,425,737,230,1210,454,883,819,955,395,420,1523,915,1900,256,436,960,1176,196,1485,317,1426,1450,1037,513,1789,1790,242,920,380,1560,933,894,863,875,289,673,1911,1954,1796,1751,801,865,1448,1904,285,209,1189,1732,306,957,1299,648,1890,1319,1947,1153,946,814,1467,1557,958,848,784,1534,537,1229,1638,284,538,638,700,1953,1895,1541,1594,455,712,323,154,1134,456,1494,1003,978,1493,276,1795,1702,567,1668,1688,1309,1800,1864,1882,265,176,944,1372,1887,1574,764,591,499,559,278,1146,166,1274,1922,310,464,1424,779,843,1675,1739,1731,1506,469,445,1207,227,1590,305,481,851,1154,1746,193,1173,1193,213,1391,231,1211,1715,1224,327,378,212,1192,1248,304,1846,1782,1468,1488,1791,973,1222,831,1400,859,1170,190,1713,1548,23,1858,793,569,545,1807,1514,1465,1204,224,1777,207,1187,1474,1660,599,1889,1296,534,833,1524,340,968,621,573,383,633,954,394,1139,159,1780,1598,249,1434,245,257,1878,1614,204,1184,1293,1874,1431,1606,631,791,1238,529,594,1785,1849,1877,1724,1247,1814,610,1928,792,878,945,1833,1245,862,1902,1586,812,320,382,1633,1697,1234,514,298,1566,1397,1179,199,696,760,1781,1845,1856,458,490,353,372,330,453,1562,837,1908,829,1393,386,1761,1825,939,925,28,1649,1460,771,404,484,277,1577,313,770,260,498,1938,1401,1862,1798,1909,1396,531,442,941,302,544,1624,1285,1270,1670,1734,1646,1801,1865,411,1818,846,782,235,1215,868,804,1694,446,470,1870,1414,815,318,433,1641,1705,150,1130,877,1503,1455,1844,1755,1651,1599,1499,598,551,451,1265,1531,1839,1300,1767,381,741,1829,1512,924,1479,547,571,1484,393,953,1490,938,1630,540,558,590,1612,797,1710,1942,1411,1657,413,1555,1603,1311,910,832,1458,724,1568,1213,233,1303,211,1191,475,623,523,575,1585,1501,1453,1035,483,1779,333,437,471,447,678,1445,444,1171,191,677,416,1325,1873,1395,1288,614,1286,1885,1579,1565,856,1578,866,802,162,170,1142,1150,695,759,271,1257,266,794,253,149,1129,665,518,343,964,1466,1486,1246,486,622,574,1388,618,580,1143,171,1151,163,1811,660,301,387,729,64,546,570,602,1315,506,725,1290,961,390,1840,1539,1571,670,734,934,1838,876,1498,1588,556,389,255,742,430,1439,1471,1477,1374,1934,1462,247,635,1682,240,1220,223,1203,262,1438,1470,1685,1665,1729,853,268,1301,613,244,1419,901,902,661,606,617,786,1135,155,931,439,385,586,798,663,341,269,722,1429,783,847,1478,1823,1759,479,658,854,1917,273,1869,727,296,935,274,822,886,1144,1152,164,172,1278,1841,502,653,717,335,299,1621,494,781,845,564,1294,948,671,1205,225,1354,655,719,167,1147,345,412,1898,634,619,1593,1253,1243,1476,270,203,1183,1457,334,438,1786,1850,1437,1469,1217,237,461,510,561,1907,477,1622,519,342,1772,226,1206,929,1576,1617,1370,982,311,1645,56,339,967,669,861,963,979,975,1507,566,346,1573,1658,1607,1620,733,1866,1802,818,882,918,735,562,358,1318,1946,1771,750,371,936,417,1553,1601,261,693,757,322,1412,1817,1538,1570,1956,1510,1892,1004,1005,969,541,189,1169,517,1709,1194,214,1277,236,1216,1529,1703,1686,754,690,480,686,1613,1355,1292,1280,1722,1769,1394,1639,706,642,723,1610,1279,338,966,1765,1542,650,714,659,466,1960,1186,206,1749,926,1631,930,259,316,1350,1945,1317,54,1794,1695,1444,485,1441,1310,1738,1674,419,312,429,291,1666,308,790,654,718,7,1365,1673,651,1558,903,579,295,1831,1760,1824,984,1745,1897,1409,462,715,19,552,1271,1589,703,1733,1669,1901,1218,238,710,998,1793,626,216,1196,1254,364,57,361,1748,1730,505,1390,1737,315,174,1387,292,349,1427,1451,1330,864,526,1711,1551,1527,585,1602,1554,758,694,329,1543,991,1905,536,1647,646,1259,698,581,1000,1916,1502,1454,726,662,1696,1545,1415,1359,1413,1326,1473,1659,351,1632,1349,1581,1723,403,1289,1347,774,605,1361,1410,248,251,1530,1941,909,1518,1927,22,1298,1358,1481,465,1861,1797,565,1505,890,553,576,624,12,993,1830,962,452,1236,1778,1327,1353,927,1351,1832,1343,1255,1430,1689,1851,1787,787,67,1827,1763,1609,762,267,1935,1375,360,1304,356,532,632,965,337,1044,476,524,1774,324,497,1346,414,542,359,1046,999,1227,400,767,1383,769,1684,994,1371,1519,509,1287,1677,1313,1417,457,489,1625,1459,1291,325,443,1443,1337,922,1489,331,95,1075,1701,410,1596,921,858,813,1605,778,842,68,487,13,1463,1373,1933,194,1174,474,522,987,1272,25,24,307,1950,616,300,1496,1348,1747,937,1615,530,850,1031,51,587,607,550,55,263,609,352,17,849,1321,1758,1822,252,1522,807,871,368,507,1341,365,554,422,1392,290,1509,947,805,869,435,1741,1251,1323,597,1544,1295,14,1549,1525,1377,1561,889,636,1,917,375,1334,328,1249,557,589,789,1425,1449,826,1405,1637,761,516,423,768,893,697,1683,1753,1906,427,685,1331,1329,730,860,362,1384,1262,1597,630,543,666,744,135,704,667,731,421,680,1521,983,777,841,1497,641,639,749,1379,493,753,689,434,601,1363,1949,593,379,26,709,501,29,27,582,645,705,1302,366,1406,1362,817,881,1385,1750,1595,1072,92,1048,1495,1805,1333,2,1009,1559,1382,1837,6,640,3,825,9,773,82,1062,1563,1115,1231,1228,69,1345,1006,65,133,1113,1923,1619,1386,986,1039,970,1407,8,10,354,1366,1546,108,1088,1336,1071,91,1423,44,1024,1080,100,350,1962,406,62,1640,1704,357,83,1063,990,988,1036,118,1098,1043,1007,355,363,1013,33,104,1084,1335,50,58,75,76,111,1051,1055,1090,1091,48,71,110,1028,1056,1030,38,1018,275,116,1096,1106,126,1421,1775,396,956,347,989,450,838,136,996,997,1087,107,405,1052,72,1773,1225,1020,40,94,1074,128,1108,102,1082,127,1107,1076,96,1961,942,795,1085,105,1008,1001,391,123,1103,89,1069,232,1212,1378,1921,1059,79,42,1022,981,1066,86,63,134,1114,1054,74,367,103,1083,43,1023,1440,1472,1068,88,1058,78,129,131,1109,1111,77,1057,1721,59,81,1061,1276,34,1014,943,84,1064,1100,120,47,49,1027,1029,124,1104,1116,16,985,857,1099,119,1442,98,1078,577,1580,5,1110,130,132,1112,1070,90,1073,93,1480,121,1101,97,1077,101,1081,32,1012,1010,1095,115,114,1094,1067,87,109,1089,80,1060,1540,1572,293,1105,125,70,1050,1016,1021,36,41,73,1053,45,1017,37,1025,1038,1092,1093,46,112,113,1026,1914,122,1102,35,1015,1097,117,106,1086,30,52,1032,31,1011,1079,99,195,1175,39,1019,85,1065,18,1913 |
| **ReliefA** | 63,800,64,124,1104,71,1051,95,1075,80,1060,119,1099,948,1924,1961,121,1101,1384,91,1071,1776,400,103,1083,1648,1712,100,1080,1493,130,132,1110,1112,229,1209,78,1058,115,1095,1412,1380,744,680,96,1076,85,1065,48,50,58,75,76,110,111,1028,1030,1055,1056,1090,1091,1396,1908,72,1052,396,956,83,1063,1047,133,1113,649,768,1392,713,925,724,657,1962,660,721,793,704,981,77,1057,105,1085,1424,729,129,131,1109,1111,665,941,1617,163,1143,171,1151,1308,392,1593,1364,107,1087,1696,1632,348,276,356,828,167,1147,364,716,652,235,1215,155,1135,1534,126,1106,776,29,1336,1786,1850,997,116,1096,428,1558,89,1069,159,1139,67,952,1224,223,1203,1704,740,676,28,1613,1780,399,462,199,1179,1640,910,928,398,1344,1382,416,580,388,27,986,227,1207,1041,59,1408,402,614,432,1305,272,344,1518,1815,506,486,1370,1524,794,300,1005,1004,514,606,1414,586,1350,558,590,513,598,1221,1554,1602,1454,1502,1430,796,1813,324,1043,1530,562,668,177,1157,1358,732,1318,1946,458,490,1674,1338,480,1738,906,613,161,1141,169,1149,498,1857,1765,425,165,1145,1458,82,1062,153,1133,860,1039,197,1177,187,1167,353,1817,1244,610,1779,1388,157,1137,791,376,1772,203,1183,239,1219,303,312,772,466,205,1185,1312,384,61,976,1402,823,887,1859,230,1210,81,1061,231,1211,1844,1680,1792,633,1273,700,780,844,672,1368,1834,1464,1809,219,1199,1269,368,736,638,1650,764,1910,1260,1714,566,1744,1889,409,1237,510,1658,1465,1044,1485,1682,1233,1767,852,908,182,1162,1510,1366,1873,1722,801,865,149,1129,969,443,1594,1115,1610,1048,1698,1634,444,1706,1642,761,397,352,1793,108,1088,863,1806,1374,1934,697,827,544,1437,1469,181,1161,1314,336,583,440,1953,1764,1828,267,1728,1418,407,1354,543,1614,1494,1957,1009,123,1103,380,1952,1618,1664,69,1346,1869,1477,363,1268,1802,1866,834,509,1927,1453,1501,1562,1448,530,21,648,207,1187,316,1444,1628,784,848,1819,1749,1598,465,971,144,1124,178,1158,1498,1745,902,630,637,1774,418,140,1120,1703,24,25,497,457,489,1450,1426,1526,1550,712,1874,202,1182,1639,816,188,1168,1309,921,1406,1746,485,191,1171,505,196,1176,1955,1841,548,572,1951,148,1128,1334,1752,946,1399,1565,395,955,448,472,1422,709,1585,645,1008,51,1031,1771,328,1007,528,878,1429,628,1040,609,1876,873,1692,189,1169,1897,944,836,792,1894,634,924,184,1164,880,856,1612,1754,877,308,1695,1789,180,1160,999,1423,1788,1852,461,584,1681,840,1631,1247,412,1553,1601,1241,1512,311,838,1272,483,656,932,720,1763,1827,1796,1516,1904,1537,1569,991,1646,1665,1831,824,888,164,1144,172,1152,1729,1710,689,753,808,872,833,436,1473,307,1577,1523,620,533,1762,1826,1906,1797,1861,249,520,1254,1694,1630,1223,1843,1508,972,1608,1621,1349,372,817,881,664,728,304,1329,679,146,1126,1326,905,408,743,355,594,951,1509,1926,692,756,1702,1907,1378,1257,1638,1006,168,1148,775,853,1529,1854,245,493,557,589,666,597,66,1685,730,1446,773,1353,315,268,890,1922,156,1136,1778,926,556,1362,912,892,198,1178,1959,445,469,1490,1855,821,885,1545,1226,280,1285,1307,897,1541,1784,1848,494,427,961,1330,1544,1481,825,360,179,1159,160,1140,605,501,1457,585,174,1281,1332,1403,1590,299,1858,1258,714,1293,1672,1736,650,1928,1564,898,923,213,1193,537,568,874,212,1192,913,385,1890,367,994,705,1892,641,1478,1759,1823,1546,936,1434,147,1127,875,917,216,1196,1413,837,569,545,809,1737,1673,1398,959,1578,244,375,1836,1357,1872,151,1131,896,23,900,1811,1941,46,1026,1245,722,237,1217,401,644,1438,1470,1870,889,658,86,1066,1229,332,319,1317,1945,783,847,749,904,1609,1651,424,684,685,1938,224,1204,1538,1570,176,1573,593,748,1339,484,56,601,1715,1425,1449,1678,1882,763,670,57,1877,980,734,84,1064,957,1225,468,1624,1814,354,626,699,1420,1647,675,739,264,1316,1940,1688,1240,930,1548,835,831,1045,526,1818,173,1900,1371,217,1197,517,745,1742,403,681,1289,1893,1264,47,49,1027,1029,654,718,145,1125,1732,1726,1662,170,1150,162,1142,60,141,1121,1236,1250,1668,708,1635,1549,1525,1474,726,662,1322,942,340,968,1295,1925,1699,1871,1489,1497,166,1146,1711,236,1216,797,565,154,1134,1835,451,1643,540,602,1807,139,1119,964,1287,502,1707,551,909,241,327,1808,1911,158,1138,292,1661,1725,1888,1417,1756,419,1462,1313,1405,1913,215,1195,137,1117,220,1200,798,387,561,688,142,1122,248,617,1853,1361,243,54,1482,1486,1659,143,1123,1049,1597,1676,1740,1574,438,475,523,711,1242,371,1723,618,333,973,437,575,623,963,426,334,1466,1387,518,1321,1155,1663,1727,1249,1375,1935,1718,350,1654,460,492,1581,636,1514,1586,879,1909,1810,500,1713,1903,175,1649,752,138,1118,381,20,195,1175,379,1566,1259,579,1279,746,682,1557,760,362,1232,1697,1599,1633,250,1441,1930,947,1820,339,967,560,592,696,1515,1705,1787,1851,707,1641,1896,1499,600,1379,1669,1733,755,691,1442,1785,1849,1320,1948,1885,1777,891,1416,695,1920,576,624,759,1277,570,546,211,1191,1310,1299,751,1917,1769,1365,284,818,882,1298,1800,1864,647,1302,1582,839,1491,1333,1342,470,446,1528,1552,508,552,1761,1825,90,1070,152,1132,918,1291,770,476,524,1875,1816,1932,814,529,687,1445,488,420,604,404,989,295,62,1428,1452,1833,1720,1656,1271,596,11,1436,1860,441,1276,1878,608,998,452,1568,1369,318,391,588,1747,1588,1352,1315,820,884,22,1616,1419,1517,1222,945,669,527,733,210,1190,204,1184,643,221,1201,1782,1846,1683,1804,1868,929,473,521,1755,627,1443,1468,1383,1626,102,1082,1488,1563,1404,1652,717,1243,653,325,1801,1865,854,342,938,270,1284,725,661,988,990,1770,430,1483,496,895,1781,1845,1842,1463,206,1186,1716,183,1163,413,1919,288,504,564,1542,876,849,1520,1230,855,1532,1939,40,1020,799,1591,940,1432,1395,479,301,1303,1153,1944,1690,977,1556,1604,1278,1311,1527,1551,1447,1400,1456,1504,864,242,777,841,1522,435,1731,1451,1427,88,1068,1589,1918,1263,192,1172,320,1622,1262,293,1687,1954,1880,1290,1415,747,1306,209,1189,1154,683,920,1902,1411,1340,302,201,1181,1347,455,449,829,1331,1533,55,1884,531,781,845,1666,1730,631,323,256,1484,1840,1492,1667,1356,1235,218,1198,673,1686,200,1180,737,1636,830,1700,1476,632,1605,1644,1708,31,1011,1958,960,1261,1943,9,738,1657,1721,291,1583,674,1670,1734,1440,1472,1239,383,1912,434,1881,640,532,1345,1812,453,949,769,813,410,903,538,1505,1475,1803,1867,260,150,1130,1480,555,1543,629,1775,983,907,950,1540,1572,1377,1584,456,1735,1671,1270,974,1337,1036,1886,1623,478,285,1576,1829,406,1719,1286,1360,612,1931,1655,281,1373,1933,937,1743,1253,186,1166,1757,1821,1627,1325,1294,1679,1625,1798,1862,857,782,846,1407,1519,1580,1359,503,1341,512,1691,246,1783,1847,423,1156,1238,193,1173,1689,1034,1265,232,1212,1401,1600,982,1348,789,1559,8,10,414,1376,1936,1500,1300,208,1188,1267,266,1046,240,1220,1830,1837,987,1758,1822,190,1170,122,1102,573,621,331,1883,411,283,474,522,1950,1256,214,1194,536,321,1942,252,1838,1234,1410,1328,279,265,1280,359,106,1086,1319,1947,1937,263,1575,450,1513,43,1023,807,871,771,1535,1739,225,1205,516,1675,1923,317,616,2,603,329,1547,1653,958,1435,534,1791,1335,1717,1751,1042,349,1351,261,343,417,693,811,271,788,1433,1660,382,282,757,1592,1724,5,812,234,1214,1898,226,1206,1252,549,894,702,277,1929,1324,313,766,815,1282,233,1213,433,1266,1275,1323,305,1355,574,622,1760,1824,1479,429,1251,269,1839,341,257,1684,1795,94,1074,65,935,1372,804,868,914,1439,1471,306,464,286,939,38,1018,347,1596,1292,978,259,275,1297,550,1283,1615,1231,454,535,351,1832,314,365,1790,194,1174,1567,1879,1587,671,735,7,1579,1531,1327,1467,1431,1487,495,185,1165,1956,1539,1571,337,965,802,866,1555,1603,1455,1503,1748,1753,1002,1397,1255,1560,322,477,1003,774,803,867,326,415,1367,1460,1,1496,296,297,703,1620,539,1891,1301,1611,1901,698,595,1288,1895,786,309,1511,553,790,511,832,655,931,289,719,901,762,625,727,663,765,1037,1296,247,810,862,125,1105,1794,1856,767,369,481,253,1677,1741,899,1389,1363,238,1218,1799,1863,338,966,1887,26,525,358,1768,1035,278,335,439,37,1017,287,377,1227,6,1536,911,390,254,1750,431,619,1459,758,519,701,258,694,1248,577,611,405,646,228,1208,851,571,547,1915,471,447,861,422,710,16,118,1098,779,843,1607,113,1093,1507,389,686,1899,361,750,916,1495,255,642,373,893,677,1246,806,870,1394,706,741,985,1805,14,1386,581,393,953,754,690,1409,859,1274,1391,1595,1960,826,112,1092,919,482,578,310,4,294,850,805,869,3,1916,975,1228,778,842,52,1032,1001,1385,742,1304,678,635,995,1000,73,1053,262,298,822,886,36,1016,819,883,394,954,330,787,370,858,374,639,222,1202,15,1033,53,44,1024,962,1390,378,386,979,922,541,290,101,1081,785,915,554,366,345,273,659,723,109,1089,1461,1619,117,1097,1773,104,1084,1921,1606,1506,1038,651,715,68,795,943,18,79,1059,927,933,970,1393,12,1343,1709,1645,499,251,421,39,1019,459,491,992,1561,120,1100,92,1072,542,599,1905,35,1015,563,487,507,19,559,591,731,463,667,587,1701,607,1637,357,1693,1629,1949,45,1025,934,515,17,346,274,996,33,1013,615,135,13,467,567,114,1094,97,1077,99,1079,442,134,1114,582,30,42,1022,993,136,1914,1421,93,1073,1766,984,70,1050,1116,41,1021,1521,34,1014,87,1067,1381,1010,74,1054,98,1078,127,1107,32,1012,128,1108 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| **UMCFS** | 1961,1377,407,1962,534,128,1108,1249,625,800,401,1388,70,1702,127,1107,361,30,408,936,1780,1387,348,1385,123,1505,463,1007,1251,1043,1789,785,1381,1630,719,130,404,1389,1322,397,77,1333,810,47,626,927,109,1027,1057,107,1087,295,1853,1103,1089,51,1638,94,989,1050,658,1074,1031,1001,3,1607,78,406,1386,86,525,96,1384,1391,100,88,1907,39,33,1076,402,204,1066,890,74,1058,1184,1328,1508,97,1077,935,82,1054,1606,1390,115,132,1110,1112,1080,113,273,633,860,1013,200,388,98,536,1062,1506,35,117,1256,787,1097,1015,1022,13,42,1180,1694,345,1757,663,993,1378,1093,1035,1046,89,1069,95,998,802,347,120,1821,16,1392,1341,24,1629,1078,1095,1075,1068,996,2,44,1100,1024,112,93,387,850,1092,29,1073,101,114,1094,990,1081,1019,410,73,99,1307,299,1563,362,892,1701,354,958,134,1114,1405,106,634,563,1507,627,1949,293,526,1693,116,159,1004,7,1086,1038,1079,118,83,1063,1096,40,327,1869,92,1637,1924,531,1906,1139,866,1239,1020,1383,1235,79,655,1072,1872,122,34,1334,102,1009,1014,1082,85,69,129,121,275,780,1065,1516,1781,411,1102,635,982,1957,984,931,1226,1101,28,32,852,1098,160,124,997,1845,844,722,1059,1140,1011,105,1012,849,1382,1616,650,527,1250,31,1183,1085,201,170,1887,276,1150,1053,727,1008,1605,131,1109,1111,133,903,203,1113,325,195,405,1897,1400,326,1181,1514,983,52,81,9,632,10,43,1032,1406,367,532,1175,6,1240,1083,777,1321,1104,103,1893,1023,119,1276,1882,841,375,1272,1099,364,1236,1323,1105,91,1905,1424,84,1064,1010,1928,788,715,425,631,1916,1524,1003,859,1061,1115,1380,108,1615,90,1070,26,875,651,1843,45,282,1829,417,1608,1088,798,1060,1901,667,779,843,15,1,475,211,723,484,257,659,1305,1951,1233,1793,851,904,80,1441,1025,544,1116,125,444,104,461,1071,1084,1407,731,1870,1040,533,804,868,946,18,157,889,1336,1366,1191,1921,523,957,12,985,60,1941,1331,482,1919,36,1137,1917,1048,733,669,38,1018,945,1002,1016,1857,863,575,1006,1763,418,68,205,4,1324,517,1837,384,1185,1252,246,857,1827,441,1408,623,66,783,528,87,57,847,1343,1792,1033,53,1614,913,5,1335,289,8,148,412,1379,1128,19,617,1900,929,1647,1796,628,169,286,1915,1842,717,653,1037,1562,824,619,1067,54,1830,888,1711,661,212,725,1192,823,1149,20,1767,942,194,1344,1613,426,1612,887,65,1174,427,1631,294,1695,1800,355,37,584,1864,1017,919,363,636,308,462,1937,382,1049,398,1797,312,140,724,1120,660,519,253,1462,735,1839,1766,14,855,971,1861,353,1639,1368,1703,912,1465,144,1124,27,1958,451,1771,1911,1794,861,186,791,292,316,296,1419,180,25,1160,1166,1758,1884,1643,1707,819,795,396,956,1822,1315,551,138,1635,1118,1699,339,1255,1327,815,695,759,883,967,1938,64,260,1521,716,1889,652,1743,55,185,213,150,1888,1193,1860,992,1960,760,696,1551,1527,876,285,1339,1374,1944,1451,1427,1130,209,464,1934,1189,1106,340,256,968,671,126,1541,1677,1599,1499,1679,1765,1269,991,1741,1877,1325,219,1165,184,136,1164,1894,943,700,1898,416,933,1722,1253,1658,1803,196,432,1403,1867,1835,1641,1705,1484,1913,142,1176,748,1437,582,1909,1309,1122,21,684,1801,1865,1469,1492,988,1716,764,1199,207,986,300,781,746,682,1187,845,242,22,208,862,1652,1266,999,1786,928,680,403,1850,744,415,697,67,457,821,963,657,1565,864,386,1047,980,885,1592,1633,1697,987,329,436,1273,17,1844,1522,1188,1397,1759,301,995,1443,1823,587,828,776,428,149,561,489,217,771,911,1129,261,1197,811,1584,241,1662,1750,1726,1000,799,1398,72,1052,853,1651,1715,1832,1926,1749,270,71,1051,179,1159,206,1237,1543,1186,1760,302,1824,1330,949,797,1744,215,763,981,1306,419,1222,431,372,342,1831,609,877,356,1034,923,1195,1724,191,541,1660,409,1840,1171,1680,761,272,1806,1348,1899,808,1880,872,1904,786,306,1509,1609,344,487,796,234,738,944,1878,1214,1817,268,674,277,1932,675,585,878,1768,778,1376,1045,503,951,581,465,739,437,842,737,310,1241,485,220,562,314,673,1200,603,290,135,1936,1364,333,258,1500,960,247,445,469,509,511,1892,1802,1856,1866,734,1804,1264,670,1868,1600,1356,858,1752,1769,1896,1782,399,569,545,699,1846,1422,611,1912,629,909,950,1700,1636,254,908,668,281,732,698,341,812,1871,255,269,1274,1728,1903,794,278,1228,1664,1833,529,313,612,730,535,649,713,1395,1820,1751,721,666,1881,1785,1920,1952,376,1332,557,589,901,930,1476,249,1858,1849,262,1644,1708,907,227,1207,762,274,346,63,961,1656,400,359,23,226,1914,718,654,1206,305,202,1720,1182,178,349,1158,236,1515,1216,900,1762,56,1597,146,1826,1886,604,1229,827,1511,1611,1719,423,1655,1710,1795,235,1262,1646,1925,1215,1225,298,1931,288,380,158,726,662,1859,1138,228,1420,244,1854,1396,297,1754,1342,330,1428,1452,512,1316,1411,1208,910,61,259,1412,1590,969,775,309,588,774,1756,304,283,1126,214,414,925,1039,371,287,218,1198,1194,1552,1528,1036,1923,11,303,874,62,1798,1862,230,1210,1576,1714,1650,542,1537,223,826,1819,1203,421,1440,1472,952,1421,972,1512,1569,393,284,1271,978,1764,1828,953,583,1423,156,360,806,1005,1442,870,676,740,438,618,1136,1783,476,1847,452,338,966,1778,741,1367,560,592,238,216,1678,552,524,1838,1540,1196,576,328,918,1346,48,1523,1572,624,49,1029,1270,245,924,198,1178,199,1404,1490,334,1179,155,378,677,1742,1135,50,789,420,1634,994,937,58,1698,1281,424,1431,1813,792,75,1808,1564,495,488,76,1910,229,1642,518,266,1706,110,1567,1675,248,111,1739,897,940,1836,1261,1467,1531,856,813,784,1028,848,873,1645,1709,1030,1340,1055,1280,1542,1056,357,1090,187,1091,1950,1775,1167,392,1885,171,1151,1466,483,1209,1497,1224,814,59,385,805,1041,869,1311,1446,1566,543,825,1292,1308,1890,714,818,882,970,1415,1438,832,1296,1470,1218,1246,573,1282,1787,1774,1851,1243,621,1294,1286,1481,473,549,521,449,1879,1473,768,704,1347,1922,1414,1353,147,440,1127,567,648,595,336,1278,1288,712,580,1538,172,1570,182,683,747,1152,1573,1162,548,572,1841,1503,1468,711,1713,1455,480,1649,153,439,1133,571,547,460,337,965,152,1464,1132,492,891,335,939,472,448,1417,1238,504,1409,163,1143,231,267,1211,311,370,164,1144,1234,481,550,977,693,1313,757,1772,1263,168,1148,430,556,450,1657,728,665,501,729,167,1147,307,1943,905,570,546,601,1721,243,351,1816,1360,574,565,1267,161,622,1141,1718,470,446,474,1654,291,782,143,846,1834,664,522,237,1217,190,1170,1673,1737,1704,1393,1815,1123,1640,265,1553,1317,1444,1601,1891,139,1119,1945,1363,1257,478,914,1568,1461,233,854,1776,1959,1213,315,630,758,530,1818,596,742,934,1453,694,1501,250,181,1161,471,447,1223,368,1598,456,1456,921,366,1504,1807,1532,1930,46,1312,1026,1394,379,1779,678,225,383,1268,1205,1491,839,1556,1498,264,1529,1604,916,902,466,222,681,350,1202,745,1365,1770,773,1727,1244,947,394,770,1432,1883,381,954,1663,1582,1895,915,429,1753,1284,352,332,1373,1933,559,1352,591,879,938,510,177,154,896,1134,1157,1260,240,1544,720,1220,1285,1320,1948,1310,656,1258,586,840,1416,1918,610,1245,459,496,491,1489,1429,1810,443,232,1761,1212,271,1799,1825,1863,1314,1696,166,807,1146,838,1293,1254,1418,1632,871,1275,1791,926,1338,343,553,1805,486,1326,1329,1482,210,1190,165,1145,192,1494,221,162,1201,1142,1172,1362,1510,1221,1755,1610,1354,1855,280,41,1740,1021,941,922,1454,1676,1259,1502,1399,790,1942,1526,1550,1242,1873,193,1729,1665,331,1173,593,1402,224,1204,189,1169,1902,197,1445,1493,1738,1177,395,1674,837,769,1574,1318,1426,1450,955,1513,614,1946,964,1430,917,263,751,687,803,502,1044,458,490,867,493,816,898,374,239,1291,833,647,1219,1554,1602,1530,514,1361,442,1413,1648,1525,1549,1425,1449,1410,1661,1784,1474,1725,829,1848,1247,365,1814,772,959,555,1773,1483,1357,834,1545,141,1546,1121,145,766,702,1581,564,1349,1790,1125,974,1345,373,455,906,932,602,1534,1290,646,710,1619,638,479,1595,1495,579,391,640,494,894,679,743,639,1355,1620,1042,755,691,707,1732,643,1670,1734,538,1587,1579,606,1518,506,1289,1520,1588,1519,498,598,539,1488,1580,1480,1668,358,835,672,516,434,1583,279,1555,578,1591,1603,1712,822,736,886,973,616,577,1477,467,1577,1485,1585,1487,422,505,605,1517,540,1479,607,507,1594,1927,1350,749,1908,1691,1277,1653,1627,1717,685,435,1358,1788,566,183,1852,893,1163,1596,251,1433,453,615,137,1117,1745,1681,568,515,1593,1622,1876,1736,1672,831,433,1496,389,608,558,590,1319,817,881,620,1947,1618,830,1287,1231,1279,1557,390,1369,520,1295,948,477,1337,1283,750,686,1733,1669,594,151,1131,1621,1685,899,1731,252,1929,689,753,1688,1667,1560,979,1434,508,1624,1589,1559,1248,1539,1571,1401,641,1371,1671,1735,1351,793,1230,1874,597,1370,1463,1746,1265,1439,1471,1777,1682,1692,497,962,1458,454,1359,1586,1686,1953,688,752,1659,1723,1689,765,1954,801,865,767,809,1459,1448,1447,1625,1956,599,499,880,701,377,756,692,1628,1547,554,1561,1939,1626,1811,703,1690,975,1548,600,1875,468,1666,644,708,1730,1375,1935,369,1809,1460,613,705,1558,1475,1578,1623,1687,1575,1535,1955,500,413,1435,537,1486,706,1478,1227,642,895,1748,754,690,1457,645,1232,1533,1372,1684,820,884,1436,709,1812,1747,513,188,1168,976,637,1940,836,1617,920,1683,1536,174,320,1154,318,324,317,323,322,176,321,1303,173,1298,1297,1300,1153,319,1304,1156,1302,175,1155,1299,1301 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| **UDFSA** | 1736,1515,1883,1615,535,1872,328,635,1507,1768,411,1341,1516,1961,1616,1381,135,30,1895,9,5,526,126,987,903,1962,787,327,1099,1014,46,1011,1424,348,107,536,1106,34,402,1026,1932,1607,1004,1081,1385,989,1256,1054,982,74,1053,104,73,91,428,33,1013,1382,1057,914,410,43,1023,1766,92,1390,31,29,84,809,1867,1064,1803,1108,408,1084,1391,276,41,1115,634,1387,3,1082,32,1087,47,119,1027,1324,1021,1065,103,1720,1605,1072,128,85,66,1398,1070,788,1083,356,1506,1392,80,1061,406,1608,1328,1012,1063,525,1388,134,984,948,1085,1492,1086,404,1656,1067,1101,1869,1071,913,102,18,77,87,1076,96,990,528,1366,1060,82,115,108,105,1095,397,28,121,1088,1952,106,1307,1484,898,482,81,487,627,1505,1614,1680,101,626,1052,1389,420,72,1062,1606,1508,63,1096,123,996,1103,1611,628,1104,132,1223,116,1386,124,1110,1252,130,1114,527,1112,1019,1078,39,1847,405,1783,1058,1010,1592,1097,10,78,98,244,1835,810,587,747,625,117,1308,1744,800,1524,785,21,1511,143,1123,407,243,1792,1946,1318,1346,883,563,819,1276,90,88,1904,403,83,862,876,1674,1944,1841,897,1584,139,1738,24,27,1894,1119,683,345,44,362,1864,919,1024,16,1800,1068,935,26,1780,1940,1001,273,1124,1332,144,1610,20,109,1089,863,1224,851,1127,1405,147,714,1464,1462,140,1120,2,1789,463,1719,1914,1655,1846,559,1782,591,1727,1383,740,676,952,1009,1333,1663,69,1046,1461,1900,1253,1765,1102,1325,675,1354,133,191,1171,908,1554,1454,1602,1502,122,1113,1781,911,1845,1805,1871,1802,650,1866,1882,1664,1530,1510,1007,1430,748,1008,944,1678,779,1931,684,1476,1640,926,739,815,1913,1919,459,491,1728,859,843,1414,53,354,928,716,658,1739,1771,1564,1879,1380,1463,951,959,698,412,1576,1928,426,1820,1632,1236,1878,1893,1742,890,1350,1884,294,652,93,722,1562,94,1704,874,1033,351,1402,1073,1950,1916,1753,1074,1920,582,724,1806,1358,1696,1240,280,668,1334,1069,979,1859,89,1080,201,288,148,732,958,100,1817,1128,1702,1181,762,1694,1036,151,1131,1000,1756,202,891,1182,792,1939,730,1675,1960,532,963,1377,1406,1630,1778,1400,269,868,1613,804,1754,129,131,1111,1109,660,271,790,1514,1937,1910,1902,13,12,1321,67,1642,1834,343,633,1015,292,666,1344,35,1498,1040,1959,1947,529,632,827,564,22,1906,1857,1422,400,1638,409,629,1362,1319,1854,802,1650,1714,341,260,1598,1706,866,1698,1249,1043,264,757,332,1819,1378,1808,875,649,1544,1364,1889,1305,583,1428,4,1420,1877,1634,511,1522,1167,187,1452,483,1652,1716,1528,1637,775,64,1552,337,965,940,925,763,256,1600,1051,464,1860,713,1912,71,1636,1500,1926,1465,1758,1822,1440,1272,1472,1908,1225,1572,988,1540,114,1094,693,1338,1830,699,1568,1838,938,1384,1644,1336,136,1050,1646,1710,70,1221,1700,1541,1408,481,665,1006,1316,1521,373,729,1565,361,1888,721,657,1892,858,1708,993,1855,1949,365,1047,1441,346,1836,1886,1342,842,778,449,821,885,1002,850,1376,549,1899,521,473,1881,621,573,1701,1936,1190,210,971,1767,853,1843,1250,794,1429,985,1468,1774,1437,1469,1529,900,774,981,1269,1322,736,1848,388,1259,1784,377,1049,274,1284,369,799,534,485,385,192,1553,1601,796,1453,1501,279,1796,672,1509,1537,1569,901,1172,425,462,561,1609,1693,786,1044,1629,1938,382,771,433,1942,1870,1945,1317,942,60,297,309,1712,910,1264,1673,1737,782,846,363,461,19,417,923,40,1660,1648,813,68,1724,1309,1020,1266,585,517,636,1048,865,51,1031,1185,801,1017,37,541,65,205,1241,1265,113,1093,1657,941,1721,969,49,1243,255,1029,8,1273,1267,617,259,1482,1263,562,1943,995,291,1368,1905,1833,383,907,1799,1922,1311,1863,586,502,1373,1933,1770,1410,1251,1323,1773,1288,353,313,395,955,295,1413,305,1915,933,1038,1828,1764,726,662,1582,253,120,1100,826,602,289,909,918,934,57,79,1059,1214,234,814,45,1025,960,1330,1237,331,1184,204,386,293,718,654,661,677,725,929,1257,741,653,1779,783,847,717,457,489,838,1918,618,393,953,1426,1645,1709,558,590,1490,1450,570,546,930,818,882,845,781,1526,438,1776,1550,1397,1365,350,669,733,1,1418,1653,270,1717,1353,518,1296,917,470,446,263,342,1903,334,1795,486,1292,630,1856,510,1314,503,1929,233,1741,1213,1233,352,15,1677,1139,159,679,1394,458,490,1590,936,1340,743,257,588,530,873,206,1186,1278,922,1862,1798,937,1790,286,1489,1357,218,1198,254,1958,805,869,697,443,817,881,611,325,476,524,1290,1898,1858,344,1831,789,1349,1801,1865,452,488,315,543,610,576,624,1268,494,902,1823,1759,552,671,1777,812,278,735,387,619,519,245,1105,125,822,886,1628,557,589,272,95,1075,439,855,612,769,158,1138,399,97,241,1077,594,1797,1861,1312,1589,949,7,275,947,761,957,1839,335,673,737,1692,284,1132,1818,1826,1762,152,1951,1244,878,931,734,571,547,915,471,447,1261,670,199,887,823,1275,620,512,1179,1280,1597,384,418,1497,364,932,520,992,1258,719,916,347,655,1206,226,1752,972,1850,1786,1404,1271,25,55,1649,1713,1481,277,1248,1168,188,1034,861,1868,1804,1260,296,258,1794,1005,303,14,1909,727,962,1907,663,1239,11,307,1567,1815,262,1897,368,1793,1194,214,997,793,1289,889,1286,1842,1235,442,1473,603,1697,1633,811,1880,211,1191,744,1513,285,1561,1647,1885,954,394,1705,1711,1641,680,720,656,1361,422,299,1921,1345,401,1045,1925,1445,1285,956,396,1035,888,824,329,945,358,355,1813,678,311,1293,208,1188,964,899,23,770,1474,742,696,427,1545,357,1079,760,531,330,1174,194,631,773,852,1581,1056,1030,50,110,75,76,58,48,111,1055,1028,1090,1091,1294,421,920,844,780,1927,249,795,265,381,904,1421,238,1218,860,1227,467,1763,1827,1896,1189,209,99,1695,189,1169,1743,533,1116,261,1631,1574,1890,431,1573,340,968,1277,54,854,839,1443,290,884,820,200,1180,728,939,1679,1415,664,6,1807,1772,247,1242,542,445,469,171,1151,1755,1339,492,460,592,560,466,440,376,1444,336,877,1037,495,1435,414,1924,548,572,1178,198,567,1274,1431,545,569,1891,179,1159,472,448,1749,950,1849,1785,1130,150,1092,112,837,1703,522,474,1401,1337,1343,1923,1639,1246,1177,197,970,1183,203,367,1417,1245,301,415,267,248,595,1347,604,1166,186,450,1853,1941,1887,574,622,892,1313,1403,251,1331,302,118,1098,429,504,550,1549,1525,1483,905,803,867,1396,155,1135,1202,222,372,326,1160,180,1425,1449,1583,451,566,1170,190,1226,1548,808,872,225,1205,1816,281,924,797,1787,1851,1150,170,674,551,1310,1212,232,298,231,1211,1255,1423,1215,235,1016,36,424,738,430,581,1348,1668,154,1134,816,1209,229,1327,994,1732,416,1542,1164,184,300,437,791,380,1555,1603,413,1563,310,1531,333,1217,237,207,1187,1917,1750,999,759,695,306,1467,1192,212,1775,484,1163,183,217,1197,1433,360,454,975,1533,312,745,681,432,178,1158,1356,746,1814,1326,977,1725,1661,314,682,56,419,1254,1363,879,1457,1234,870,806,523,475,1137,157,1306,998,127,1107,834,455,1503,1536,1455,493,575,623,565,246,441,1475,1238,1751,1512,967,339,1612,700,160,1140,86,1066,1282,444,1360,242,1281,1471,1439,1575,308,1162,182,667,1539,1571,1876,1466,831,943,1626,1566,1690,554,764,596,338,966,266,1176,196,1416,496,1196,216,849,1873,1934,1374,1320,1948,1722,1412,1447,731,825,1594,777,841,772,167,1147,1229,694,758,316,647,1957,1436,1658,1222,1442,980,893,798,1832,568,991,711,544,1351,828,1812,398,215,1195,501,1146,166,1956,145,1125,983,1532,477,375,857,230,1210,1369,1118,138,479,646,1557,833,1279,894,219,1199,1262,1788,1852,1523,784,848,1032,52,593,1604,1556,1740,1022,1379,1494,42,436,1432,181,1161,710,465,371,268,1121,141,1844,1769,434,946,1676,1399,1456,1504,1143,163,1122,142,1355,38,1018,513,1791,453,856,1672,614,1117,137,162,1142,1591,1193,213,1681,1874,1560,1745,553,1955,287,912,1761,1825,1731,1760,1824,515,1149,169,514,1491,1448,1667,61,1393,172,1152,1543,1434,185,1165,1230,615,613,478,1041,195,1175,906,1133,153,391,366,224,1204,577,252,1691,776,1039,1372,832,1329,349,1538,1570,282,1954,601,1231,584,1726,1359,1203,223,835,1662,1291,389,703,1627,468,767,1707,1643,1352,423,1200,220,1459,378,1460,456,840,1901,156,1136,659,864,895,723,701,1730,1666,1367,1438,1470,1718,1458,62,390,1659,1126,146,927,1375,1935,1654,1624,1723,370,1635,1157,177,765,978,1688,1837,1699,1496,1129,149,1829,961,1821,1757,1145,165,1411,1911,1651,651,304,715,1596,59,193,1173,1493,580,283,161,1141,1715,1875,686,1811,687,750,751,871,807,516,509,1148,168,1558,1746,227,1207,379,1409,1593,1689,645,1228,392,359,1625,830,1477,1335,1534,17,709,702,973,1682,976,616,1144,164,648,1395,1270,1734,1670,1547,556,1577,1247,555,1295,712,896,1208,228,579,752,1671,1735,1480,766,688,239,1219,1580,499,374,1810,1687,1618,599,755,691,768,578,690,754,498,986,598,1201,221,1623,1930,1287,639,1748,497,1232,704,829,1622,1686,1953,1446,638,637,597,1683,1535,1370,1559,240,1220,642,706,1809,1527,1551,643,1451,1427,707,1495,1499,1599,500,1371,1042,609,600,974,921,480,1684,1315,685,749,692,756,250,435,880,1595,1619,1003,1617,1729,708,1546,1665,1419,1485,644,1479,1747,1733,1669,753,689,640,1579,1585,1283,1300,1840,505,507,607,1407,1519,1578,1298,506,605,540,1216,236,1478,606,641,1488,705,1520,1588,508,1156,318,608,1685,320,1621,1302,176,1304,1518,324,836,1303,1517,1154,537,1486,321,323,317,322,1586,1620,1487,174,1587,175,1299,1153,173,319,1301,1155,1297,539,538 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| **LLBCFS** | 1962,407,1387,1388,408,1386,406,1961,1385,126,1106,121,1101,106,1086,130,132,1110,1112,108,1088,85,1065,1605,82,1062,625,1505,104,1084,525,129,131,1109,1111,133,1113,115,1095,125,1105,1328,405,24,1256,90,1070,105,1085,77,1057,1043,118,1098,92,1072,1004,93,1073,117,1097,81,1061,80,1060,119,1099,95,1075,98,1078,124,1104,1342,114,1094,109,1089,102,1082,103,1083,1341,78,1058,635,1324,63,1252,94,1074,1606,1506,996,44,1024,1508,101,1081,1608,128,1108,626,87,1067,1321,1249,1615,127,1107,84,1064,636,120,1100,526,123,1103,134,1114,122,1102,1381,627,348,402,410,401,527,276,79,1059,1250,1322,1607,1507,275,347,341,269,1391,343,1389,271,362,1616,344,272,628,528,1323,1251,96,1076,1614,1392,633,1390,650,714,16,270,21,361,342,658,722,364,908,1327,1255,1406,409,55,57,39,1019,37,1017,36,1016,107,1087,1009,926,1308,89,1069,1334,1613,852,780,844,860,1870,1006,800,425,998,1887,352,1888,353,1498,1330,1598,404,97,1077,1910,1650,1714,1008,1706,1642,1698,1634,1780,1779,1000,948,475,523,660,724,1907,1926,354,1844,18,1778,1366,1908,412,575,623,1696,91,1071,1632,1344,1638,1702,9,426,1652,1764,1828,1647,1716,936,1331,1418,1711,388,672,736,716,652,1001,1314,1526,1550,1450,1426,1648,1712,384,1258,1834,1630,1694,1306,1695,1704,428,1631,1640,1636,1700,1912,385,1762,1826,1362,1600,1500,1644,1708,992,999,983,29,1924,1928,1836,969,116,1096,1336,932,1363,720,656,356,1007,791,985,440,620,1048,1400,1703,10,520,1332,728,664,336,245,981,1639,1906,993,1260,1242,26,1927,1407,1329,1420,28,928,1715,1651,548,572,863,472,448,1310,1316,1033,53,3,451,1244,1312,1552,1528,1003,1452,1428,1497,1911,328,159,1139,1635,1699,1597,856,551,1305,1543,573,621,473,521,396,956,12,381,1886,1419,1643,1707,1224,784,848,1599,1499,1909,1918,907,1315,23,1713,1335,1272,1772,549,783,847,1649,541,1697,1633,1443,449,1367,1641,1705,416,432,1257,27,1527,1551,1266,1427,1451,744,464,680,351,1307,544,1923,1002,30,1611,1763,1827,349,533,1511,634,927,564,1253,1259,1404,1325,1046,1364,1770,20,995,1340,19,1835,1891,365,1467,1376,1936,1724,1660,1710,929,203,1183,1646,939,1883,484,280,849,1309,731,529,273,1036,345,667,777,841,1241,1567,444,373,337,965,725,661,171,1151,629,1424,717,653,693,757,1395,617,1425,1449,1411,669,1356,733,857,517,1549,1525,980,1879,1456,1504,1842,584,1556,1604,1348,1925,1268,1269,1464,1417,798,382,386,1776,1037,921,437,1761,1825,1313,1432,462,1532,715,897,651,1416,333,971,663,727,1270,297,719,655,309,1377,761,1320,1948,697,562,377,619,1839,196,1176,1740,545,569,519,1676,1228,930,469,445,1338,1791,931,913,369,1885,1005,1920,718,788,654,726,662,734,906,313,961,977,1221,670,735,1952,1959,1360,305,586,135,723,187,1167,543,659,1267,8,1833,1838,1439,1471,671,1408,2,632,403,1421,1830,1758,1822,1892,532,1243,1375,1935,13,861,911,1759,1823,864,799,155,1135,1384,732,518,1831,618,40,1020,668,1264,488,588,1402,855,427,1049,952,1723,1352,1659,438,501,946,1841,355,293,66,935,334,1222,350,1880,450,1539,1571,530,1398,1881,657,367,721,201,1181,1788,1852,25,1311,850,244,1039,778,842,827,1889,295,997,1960,486,630,1775,1796,511,550,1492,474,522,982,441,1273,360,858,1317,1945,792,957,1673,1737,1931,433,1396,740,787,713,649,676,1237,574,622,909,601,570,546,695,470,446,759,610,1234,1265,1223,1719,923,825,205,1185,1655,1795,795,1890,558,590,195,1175,821,885,1917,943,424,1792,460,492,375,339,967,510,583,1238,782,846,235,1215,1777,1116,698,1233,439,264,1337,418,934,1524,509,1804,1868,1373,1933,611,560,592,904,458,490,801,865,335,1657,1609,762,1292,332,571,547,250,1721,1368,891,854,1276,447,471,1509,1442,874,811,285,1564,211,1191,259,1280,257,781,845,775,810,199,1179,1872,902,379,493,252,485,1240,1489,6,773,862,1529,1932,1353,167,1147,457,489,1942,157,1137,1429,223,1203,1357,987,503,815,1225,1553,1601,1229,1401,1361,1784,1848,255,730,1413,158,1138,666,303,945,1656,1453,1501,248,1720,197,1177,1231,1653,1261,937,265,1752,912,1263,1717,947,1769,1592,925,1383,1929,1751,253,1589,463,371,1236,163,1143,1547,593,741,1461,54,191,1171,286,677,1412,51,1031,1843,188,1168,1230,1296,88,1068,289,1041,1801,1865,224,1204,531,609,1339,1512,466,443,338,966,1899,1035,160,1140,1612,557,589,1397,1940,1430,1345,631,994,758,694,1454,1502,1349,136,899,585,1403,1790,1768,419,393,953,1232,301,1288,933,1680,399,1378,413,278,423,1915,839,812,1365,1447,442,59,984,1799,1863,414,940,1530,1563,1554,1602,889,1115,892,1744,1840,1431,219,1199,1855,1869,513,1040,434,1293,1565,1958,204,1184,1531,737,38,1018,1771,1904,816,568,1379,1463,673,1818,234,1214,151,1131,1289,1277,603,4,468,853,822,886,1693,1262,1629,429,7,1285,1951,840,1274,938,805,869,1481,60,56,1701,180,1160,172,1152,1394,1637,184,1164,359,1561,566,292,262,1343,1465,249,231,1211,1537,1569,1455,1503,1555,1603,900,1491,1475,986,1766,1437,1469,879,15,880,1905,1765,1581,170,1150,1346,1741,665,1542,771,729,147,1127,1677,495,330,284,42,1022,817,881,613,383,397,820,884,1,1514,1483,970,1271,1900,417,949,1645,1781,1845,786,1484,1709,1783,1847,430,140,1120,1523,69,1774,189,1169,1482,1950,1858,1878,963,194,1174,153,1133,154,1134,144,1124,1728,1440,1472,920,1227,1664,366,33,1013,267,202,1182,169,1149,483,146,1126,186,1166,1423,890,976,378,1490,1902,22,1372,192,1172,307,602,415,212,1192,411,1473,785,496,370,1510,1760,1824,1919,563,1949,190,1170,1333,156,1136,1582,1803,1867,594,790,1590,502,1794,1941,291,358,535,1573,392,152,1132,772,1283,494,1248,1476,959,1045,1684,1748,422,1575,5,1591,287,282,326,779,843,1955,1938,1832,1410,1871,1895,421,1516,1914,325,374,768,851,595,824,888,1800,1864,315,876,198,1178,1540,1572,859,1675,1460,504,1739,704,254,1521,991,979,1245,973,1347,1742,1468,229,1209,1287,682,166,1146,835,233,1213,746,452,748,220,1200,165,1145,477,542,684,1610,316,11,185,1165,1281,552,459,491,1319,1947,206,1186,1678,1750,898,431,915,1802,1866,836,978,209,1189,363,1380,596,480,1820,1560,875,1226,1583,290,1913,802,866,162,1142,512,1436,577,1782,1846,1371,1382,1044,1247,1747,1922,142,1122,138,1118,877,168,1148,1894,989,1405,221,1201,181,1161,814,357,1568,1944,435,645,709,300,797,456,960,1773,813,1683,917,837,1957,794,922,218,1198,213,1193,164,1144,145,1125,161,1141,806,870,312,637,765,1817,770,576,624,476,524,914,207,1187,1446,1812,1466,1785,1849,696,1876,760,895,1295,1474,580,701,61,149,1129,1548,288,1662,769,1726,1674,1738,258,1318,1946,581,534,1369,14,1495,1956,210,1190,1814,743,958,481,962,1574,311,516,277,1459,1496,679,1544,1681,807,871,1930,302,838,283,1901,304,1536,1047,1595,919,1291,1921,1584,1654,604,279,1239,1745,1457,616,1718,789,389,308,1755,1596,1254,1435,232,1212,1576,1458,1513,327,1533,227,1207,910,274,950,260,1326,612,674,228,1208,763,436,1562,559,591,1559,241,818,882,1937,1743,247,1557,346,1566,1399,1628,738,1350,832,1358,380,793,1235,1355,536,340,968,918,1857,376,1422,1916,831,1679,208,1188,1954,141,1121,230,1210,1661,1541,1819,1546,685,749,1409,148,1128,1522,137,1117,1433,1558,1725,150,1130,256,942,1692,767,1282,183,1163,268,1939,236,1216,975,873,565,561,703,924,830,751,299,700,951,487,699,1860,243,687,711,298,796,833,1789,1896,556,1444,216,1196,294,646,1275,1034,578,420,398,139,1119,1284,368,329,774,1493,1479,1893,1767,1441,1808,1545,1618,1884,804,868,515,1359,710,1438,1470,246,1811,753,689,1279,893,878,143,1123,500,1690,465,1874,1448,1579,764,1626,614,1445,498,391,1494,598,905,1625,554,1897,647,752,600,65,193,1173,974,640,497,1594,225,1205,68,1278,64,819,883,688,214,1194,941,903,1877,178,1158,1953,1593,615,478,1813,1689,1351,514,1903,776,1042,739,896,597,834,1619,1730,675,1620,1837,240,1220,1666,823,887,1691,310,1753,482,641,251,705,691,755,1354,237,1217,1856,808,872,1477,707,1854,1727,1480,1577,461,242,238,1218,200,1180,314,1731,1798,1862,1898,395,955,1663,555,455,1882,1873,306,1786,1850,643,809,17,1943,742,1667,567,266,1853,1859,1816,828,1462,467,263,1580,454,1246,1538,1570,1393,1734,1670,829,1806,1415,499,639,708,678,1294,1672,1736,1805,916,179,1159,750,217,1197,1286,222,1202,712,1787,1851,756,692,296,644,686,1487,1622,1749,1686,1754,506,1627,281,508,606,62,1829,745,372,826,1587,803,867,394,954,681,331,608,1735,1671,1434,1815,683,1298,944,177,1157,599,1687,453,479,1534,505,1658,1669,1733,215,1195,702,1370,537,747,1303,901,1746,1722,182,1162,1810,1374,1934,1807,605,1515,1300,754,690,582,1585,1485,1623,964,400,1302,1624,990,1797,1861,317,390,1756,1668,239,1219,321,972,1617,320,706,173,579,226,1206,1488,1875,318,1154,553,1299,1478,1809,1757,1821,1621,1682,1486,1414,1588,988,1518,176,540,894,1665,642,638,1729,175,387,1520,1732,1155,1688,1535,322,319,1586,323,766,1156,587,1685,174,261,324,507,1517,538,539,1793,1153,1290,1578,31,1011,1519,1297,67,1304,648,83,1063,607,1301,34,1014,1010,70,1050,46,1026,99,1079,35,1015,86,1066,1038,100,1080,74,1054,73,1053,41,1021,32,1012,52,1032,47,1027,49,1029,72,1052,45,1025,113,1093,71,1051,112,1092,48,50,58,75,76,110,111,1028,1030,1055,1056,1090,1091,43,1023 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| **CSFA** | 41,987,1021,112,1092,1378,83,1063,32,1012,484,1392,92,1072,1780,766,915,1629,1660,302,1546,1341,1876,267,1377,430,1465,360,1693,89,1069,1757,1821,235,1215,1284,898,1255,1288,1593,61,413,1009,811,143,1123,1393,85,1065,1939,792,1610,821,885,749,797,1364,544,241,395,955,1042,1880,1907,1930,481,576,624,182,1162,1564,20,784,848,385,1367,1459,692,756,1478,757,1048,1886,1116,1840,401,1829,14,738,227,1207,1628,1783,1847,587,670,1812,661,1517,91,1071,1510,597,1413,81,1061,1315,286,1962,339,967,1790,425,1793,1918,226,708,1206,525,1440,1472,40,943,1020,373,1870,1040,1224,1307,1483,250,519,935,1322,530,1650,274,155,1135,13,1249,478,54,378,1696,359,1691,330,1904,423,1264,303,1528,1552,1767,1663,1316,66,1327,1785,1849,224,1204,1344,977,1368,1525,1549,581,1906,213,849,1193,70,595,1050,394,916,954,64,335,277,713,1801,1865,1481,1476,1810,772,1420,369,1808,313,619,358,495,296,1815,445,1623,469,684,1003,115,1095,1797,1861,1317,1945,1958,387,106,1086,1563,767,1901,1869,321,516,1550,1923,1526,895,247,353,603,426,745,1231,1238,1435,827,959,1842,1666,63,1579,1408,778,842,2,1227,311,1576,222,1202,1600,223,1203,1581,266,341,1289,1405,1658,42,1022,107,878,1087,149,1129,1597,586,289,56,706,851,322,396,956,239,1219,1265,598,1543,558,590,1409,768,1406,28,585,1417,1754,1875,1441,1714,443,1333,1266,1491,337,965,978,294,1927,1908,1381,268,100,1080,37,156,1017,1136,1544,125,1105,787,1560,1314,80,1060,477,760,724,927,177,1157,1365,694,1371,992,857,593,1369,485,1353,946,88,1068,1582,133,1113,1612,985,1530,432,402,662,1937,941,1486,1598,605,327,418,860,1620,1637,663,1766,1583,1348,53,1033,1698,1737,1580,1694,1599,1956,160,1140,422,1670,397,633,1734,435,105,1085,1489,411,1679,677,556,103,939,1083,975,1244,580,1038,503,1332,1759,1823,1008,554,130,132,1110,1112,517,570,876,546,1615,1924,947,1267,812,134,1114,1415,123,1103,785,1044,1453,1501,440,1558,39,168,1019,1148,534,993,114,1094,1222,877,1402,990,1838,988,73,1053,1115,1274,669,1609,283,722,659,1802,1866,1702,220,1200,1223,62,399,1723,910,1701,5,1611,340,968,1765,1404,1745,793,355,82,1062,48,50,58,75,76,110,111,1028,1030,1055,1056,1090,1091,1605,830,90,1070,232,1212,370,1953,1685,1841,47,1027,49,1029,254,828,1286,27,1738,1566,136,460,492,1833,1820,1892,1153,22,493,9,1641,1644,1959,371,699,1690,1950,630,932,216,936,1196,1349,1389,1903,723,986,1830,565,1632,409,604,68,312,577,1729,486,1410,1747,1856,641,735,1854,1447,1614,463,366,1761,1825,803,867,44,1024,1695,801,865,304,518,710,1837,1554,1602,1446,285,790,1235,1667,1710,1250,332,1154,159,1139,891,1357,1758,1822,1942,347,1651,228,231,1208,1211,1555,1603,35,1015,1931,308,173,1873,640,1436,1397,1331,1155,1653,1240,1897,1338,995,688,1047,384,863,567,377,1675,762,1776,1305,333,386,1951,437,4,1448,1753,128,1108,1647,1430,1787,1851,744,1292,1495,153,1133,230,1210,1336,120,1100,712,1350,1299,1762,1826,406,1376,1936,649,1253,1567,104,1084,1505,1832,822,886,1532,29,252,701,838,1568,151,1131,1657,608,1781,1845,727,1346,101,1081,1631,1794,1373,1933,1712,236,1216,1400,174,23,1424,1584,574,622,1689,1275,1921,855,1254,200,1180,108,1088,1617,258,900,643,263,820,884,12,21,419,176,1414,1457,450,1634,1730,1782,1846,379,1492,810,657,601,1396,527,1788,1852,741,1464,520,600,1339,416,1622,1839,918,599,561,1638,678,789,1749,199,284,1179,1236,776,225,1205,1760,1824,407,204,1184,238,1218,1541,364,72,1052,346,578,1043,36,626,1016,1490,1001,1764,1828,945,1668,211,1191,1416,1916,1309,17,819,883,202,1182,911,1750,1239,291,629,368,994,265,1656,758,617,52,1032,823,887,893,832,94,1074,1454,1502,711,1000,1477,1509,417,45,761,1025,970,197,1177,1269,1858,1673,472,448,1390,1718,1296,960,1561,680,894,1347,1345,147,1127,1308,1391,1271,317,1756,348,1461,1352,1633,1799,1863,999,1325,1411,421,1814,1399,205,1185,240,1220,837,1432,33,1013,782,846,1811,616,97,256,1077,1777,325,693,764,1283,84,1064,779,843,1618,196,1176,233,1213,1920,714,1533,253,444,726,1677,310,11,157,1137,588,569,1627,545,229,705,1209,829,1445,1395,1382,906,119,1099,1519,336,354,1669,1733,264,1607,319,1466,480,1900,1278,696,1036,329,8,10,1682,1455,1503,526,1484,506,651,150,1130,1361,145,1125,1452,1428,972,60,1952,1895,316,1687,87,1067,1388,1287,798,137,1117,1290,815,1676,664,1857,55,459,491,610,1002,1741,1251,1468,1226,555,533,575,623,1233,553,1508,1540,1572,1913,716,1512,1925,1429,1703,1156,1302,1646,1351,1379,1531,1722,1439,1471,1590,1640,381,1744,116,1096,1407,720,6,1370,255,154,1134,1372,1358,127,1107,1260,1,1498,374,1045,16,1479,404,1545,1896,1527,1551,1779,415,451,984,1494,1553,1601,487,109,1089,807,871,344,126,1106,1804,1868,1256,67,542,195,455,1175,1294,903,165,1145,1434,475,523,1944,287,582,1480,1871,1834,1366,1513,1321,410,3,1507,121,1101,18,34,646,1014,1911,748,655,1547,93,1073,1706,942,979,1692,1363,1473,1272,388,816,647,1354,273,464,549,193,1173,563,1774,201,457,489,1181,1872,468,729,427,1005,1004,568,1298,122,1102,473,476,521,524,1585,300,148,1128,1529,1310,637,1041,695,338,966,1318,1946,1616,625,834,342,1884,99,1079,1819,1261,1385,331,162,1142,170,1150,69,704,839,652,1654,139,1119,1401,1645,1319,1947,674,1708,1705,259,1511,996,1740,1515,668,431,1442,1573,171,1151,163,1143,462,529,1683,453,474,522,1763,1827,840,1562,181,1161,1588,301,1514,1773,1304,1427,1451,583,118,408,1098,879,781,845,672,717,1578,897,539,732,794,203,1183,1375,1935,249,780,844,514,750,650,1246,874,783,847,1257,179,1159,210,1190,836,1771,261,214,1194,212,306,1192,439,1648,434,1855,991,1731,1791,420,924,7,809,560,592,1536,963,276,74,1054,642,971,293,1596,488,1559,1961,1932,607,612,218,1198,613,38,467,1018,248,166,1146,1860,584,1462,1905,901,1630,129,131,1109,1111,686,1482,1277,1717,1456,1504,429,908,543,1337,1642,562,1619,795,1575,1524,1485,1049,1374,1934,1516,665,466,594,479,1418,403,1262,1688,1010,725,1007,505,1258,1957,1661,1438,1470,470,1343,446,298,270,690,859,98,1078,1422,754,1523,146,1126,1282,1412,890,1496,734,532,1574,949,1355,788,1720,1521,1786,1850,79,1059,1713,361,528,1488,357,564,1039,251,964,1813,775,436,152,1132,424,896,1279,1359,1664,1606,862,1915,1784,1848,509,730,914,1949,937,902,297,383,552,1591,376,183,1163,1242,1594,1681,320,1499,140,1120,412,1817,1297,234,1214,1522,958,683,639,1909,167,1147,627,566,405,1556,1604,449,95,1075,1229,1592,257,1879,281,78,207,1058,1187,944,500,658,1697,43,638,1023,217,1197,124,636,1104,800,721,1247,1806,702,498,648,51,511,1031,117,1097,508,1301,187,1006,1167,282,1387,189,1169,328,1548,1280,292,158,1138,288,1437,1469,1263,1313,1270,1520,1046,309,550,989,1423,215,1195,71,1051,1259,1878,799,1874,452,557,589,305,502,913,1885,1882,1816,998,551,796,1922,1474,739,606,1665,1836,715,262,920,864,861,1625,1394,1748,1674,981,907,323,499,1295,1893,512,1742,65,926,909,178,1158,1323,1789,889,666,1334,1891,1684,736,1467,1704,1798,1862,279,653,363,875,15,1818,1898,494,1312,1803,1867,269,1727,1919,818,882,198,771,1178,976,1746,1943,1686,961,180,1160,858,831,1539,1571,135,1636,537,1241,1443,30,1613,1268,923,185,1165,1225,1328,1320,1948,25,24,1926,1419,1709,951,1542,1237,634,952,1910,1300,1589,1330,1221,645,1680,1831,362,46,1026,1768,456,1293,1928,1506,930,393,953,398,618,833,507,1800,1864,1386,1586,660,442,1383,899,697,1595,814,1890,219,1199,345,731,1306,382,656,102,1082,1433,667,644,938,245,753,689,59,510,609,571,547,1739,751,275,1752,350,1724,535,192,1172,375,465,1649,447,471,295,1938,208,400,1188,1252,631,1728,1726,948,19,752,349,175,1500,1715,77,1057,1398,1795,540,454,483,86,1066,1248,1805,1735,1671,221,1201,718,1700,237,1217,1329,1707,272,314,854,559,591,315,1034,1342,1639,982,1624,905,461,1335,1770,728,497,1853,1463,1888,719,615,679,1487,1719,1475,164,1144,172,1152,307,1324,1281,635,1902,1894,1518,997,389,1929,824,888,194,1174,1659,774,928,1037,770,186,1166,777,841,806,870,933,743,1421,324,1608,950,209,1189,673,573,621,804,868,1557,892,1537,1569,620,1291,596,1444,925,1425,1449,1360,1276,1245,1431,1311,1450,1426,747,1228,921,31,1011,1587,536,356,856,742,1356,919,243,786,853,579,1899,372,1960,969,318,113,1093,541,671,808,872,1796,825,161,1141,169,1149,763,1273,1497,1699,1326,813,433,1755,934,1234,144,1124,707,260,802,866,1807,654,733,805,869,769,746,188,1168,1941,351,548,572,206,1186,1643,191,1171,441,685,1809,392,1914,365,142,1122,1384,326,1736,1672,1303,675,414,676,96,1076,602,1778,1844,504,1243,703,1403,515,611,1534,1769,1362,1725,1460,835,538,940,931,1711,1883,352,57,759,912,929,1751,1380,380,698,1887,681,740,773,962,973,138,1118,1775,957,1792,1732,709,1917,496,852,1577,531,26,632,290,700,922,1881,1285,1621,501,246,737,917,1940,1340,343,817,881,1772,334,244,1721,1877,1493,765,1859,299,458,490,687,141,1121,1889,791,1635,1743,190,1170,1835,682,184,1164,513,1035,1662,1955,271,1230,1655,390,880,1843,1652,1678,278,482,691,755,428,1565,614,242,391,367,628,974,1458,983,850,438,1954,826,1538,1570,873,1626,1912,280,1535,904,1716,980,1232 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| **FSASL** | 408,1043,1615,1961,1515,536,1605,1388,1505,636,635,1387,1616,1341,533,1516,1514,1962,625,535,1513,348,276,352,82,1062,416,525,918,432,63,440,818,882,336,404,411,92,1072,814,962,1392,1329,1331,736,672,1386,548,572,472,448,424,360,534,932,720,361,656,1707,1643,6,1911,1699,1635,728,664,1861,1797,883,819,1599,1499,770,784,848,856,1107,127,633,1763,1827,1941,663,727,719,655,931,792,1427,1451,1527,1551,1419,1339,1897,1889,1315,619,130,132,1112,1110,519,1389,401,1403,1415,620,1333,1835,520,212,1192,344,881,817,204,1184,1957,919,272,406,1919,439,1086,106,517,335,617,929,571,547,1917,447,471,1391,725,1943,661,1073,93,917,939,1715,1651,717,653,986,978,280,469,445,569,545,1191,211,940,430,351,437,333,114,1094,735,1793,1469,1437,877,671,1359,409,414,669,733,428,909,356,1535,1771,1328,1863,1799,1199,219,1395,1183,203,1769,813,1256,1857,264,1393,961,1405,1417,1947,1319,359,1739,1675,1409,977,1371,1313,332,96,1076,1667,1731,1749,131,129,1109,1111,149,1129,833,1416,1351,412,392,1813,405,423,1340,1347,421,1096,116,1136,156,1372,160,1140,1342,853,1890,1404,1425,1449,791,556,1525,1549,1148,168,769,227,1207,771,1559,220,1200,815,1215,235,236,1216,1833,489,457,1942,1770,1147,167,1606,354,364,1729,1665,1560,1420,1316,1355,155,1135,686,750,1330,1506,30,790,845,781,580,1396,1188,208,1614,436,820,884,291,1531,1735,1671,1460,1536,1459,466,292,456,1431,1412,1748,1623,855,1751,357,1411,1687,1684,150,1130,1750,1033,626,749,685,704,1196,216,768,754,690,1909,1803,1867,1569,1537,1603,1555,349,480,278,1899,772,262,920,295,124,1104,53,1669,1733,1455,1503,422,1497,256,1747,1208,228,1621,260,1685,642,1705,1641,330,692,756,1597,1139,159,1683,706,1276,1898,1194,214,435,689,753,948,688,1697,1633,1652,223,1203,277,1668,1794,705,1732,468,1716,641,1204,224,1401,644,528,628,810,255,752,1321,118,1098,380,1795,1360,526,937,634,259,1337,1272,1435,358,1613,296,371,1672,1736,1193,213,391,16,1688,1249,708,1624,379,1436,1836,964,1552,1528,290,215,1195,963,1520,413,1519,537,1438,1470,1812,896,1713,1649,539,1517,1811,269,1348,578,1518,426,14,341,1488,836,1588,1686,108,1088,538,1452,1428,261,1876,703,507,1402,876,1236,607,643,329,568,1622,11,767,1730,540,1332,293,1255,1734,1670,1487,1587,1666,289,605,1620,606,832,755,691,566,238,1218,1586,508,608,1585,506,465,1259,279,1956,707,1815,1410,1240,425,1486,1327,505,1134,154,431,637,1480,288,1547,458,490,1485,1465,1580,1918,1383,62,1209,229,390,555,257,1772,991,901,375,402,166,1146,57,869,805,816,165,1145,687,1912,1761,1825,1205,225,407,1338,1920,1394,751,499,1636,253,1445,286,616,1275,1700,363,1955,1133,153,1533,910,258,895,403,1206,226,599,766,1356,893,1352,415,1875,1862,1798,1578,553,200,1180,294,485,579,702,516,1479,1618,976,835,478,597,1406,1579,331,376,1958,1132,152,1447,598,999,207,1187,554,240,1220,1873,880,1343,1334,847,783,1190,210,759,1138,158,1228,695,263,1478,1369,806,870,1239,498,248,500,434,567,1644,1708,1381,1201,221,600,824,888,1577,967,339,1882,1810,467,1804,1868,1035,198,1178,1752,1545,1534,894,1814,875,782,846,1842,1495,222,1202,1762,1826,217,1197,1860,1539,1571,497,254,590,558,1314,1682,1883,1816,1619,557,589,1617,639,1370,640,19,1595,239,1219,1418,1251,994,479,55,995,1546,389,638,565,1498,1323,477,1746,234,1214,1311,287,1450,1426,1244,1235,551,368,834,1598,1042,515,701,451,765,975,1477,1900,1874,1466,615,350,577,1496,1858,1557,823,887,1558,1596,997,831,1500,1446,1681,789,285,911,453,830,903,1229,1550,1526,353,1859,491,459,232,1212,1944,1548,1960,560,592,662,726,1910,455,372,1242,1137,157,1175,195,1864,1800,1471,1439,575,623,1948,1320,1143,163,454,1243,1324,1252,908,1189,209,1745,1706,475,523,1269,1264,562,429,1241,367,1390,1309,197,1177,1600,1310,1642,233,1213,1434,993,654,718,1796,586,1764,1828,410,974,1841,1144,164,17,1227,998,1538,1570,930,1210,230,1048,151,1131,1458,1566,1270,1698,102,1082,1260,1809,938,462,1565,193,1173,1634,1740,879,1037,54,340,968,902,1266,492,460,1457,334,438,587,481,1676,1174,194,446,470,546,570,161,1141,591,559,1789,1095,115,1231,1611,18,237,1217,1881,614,811,162,1142,829,1626,1230,15,461,1462,1856,854,1690,1157,177,618,487,1511,1268,518,252,1271,1891,838,1441,362,864,1179,199,696,760,613,1433,514,250,1607,878,1238,1312,433,1273,1508,1507,452,284,1608,1413,1044,69,1714,973,1928,552,1358,1650,1448,1176,196,369,1237,1954,1045,1005,670,56,734,1049,282,1265,1233,1785,1849,1542,1855,812,251,524,476,482,378,872,808,1594,866,802,66,861,1493,1834,1879,1047,624,576,1593,992,1274,677,1843,1350,1953,741,283,1817,1185,205,1036,996,513,1198,218,1234,61,1258,370,1791,711,1456,1504,912,25,281,22,1408,1432,1786,1850,245,1010,645,709,1494,1160,180,247,563,105,1085,646,67,12,742,710,1414,1084,104,678,953,393,1916,1041,945,51,1031,1567,1461,885,821,1267,800,1604,1556,1382,1532,1853,64,585,463,394,954,1336,327,1172,192,1788,1852,1250,1322,184,1164,1802,1866,178,1158,647,980,231,1211,1167,187,1689,206,1186,337,965,377,486,809,979,1625,958,1349,1002,1467,181,1161,1159,179,13,190,1170,1818,1959,1162,182,365,1344,1385,1257,693,1232,757,1163,183,249,1373,1933,84,1064,1046,1034,1357,20,1151,171,1149,169,1768,1691,1892,1152,172,947,1627,631,347,1937,1721,1226,899,1354,328,1658,1722,886,822,1787,1851,170,1150,1182,202,873,1657,1844,531,1000,862,1181,201,1472,1440,275,648,49,1029,1934,1374,1262,1346,373,1674,1738,374,1692,1318,1946,863,1011,31,871,807,1540,1572,1628,837,427,960,419,801,865,712,343,935,271,121,1101,1308,417,1058,78,1541,1407,1884,758,694,338,966,1399,355,420,588,1367,1442,1737,1915,1673,1317,1945,1115,1927,890,1169,189,21,1925,1261,1171,191,188,1168,42,1022,1938,1880,904,1865,1801,1895,897,1939,1612,804,868,488,342,1790,270,1781,1845,1543,874,1878,1476,246,1263,1353,561,936,1512,1820,1940,1075,95,1913,1400,627,1103,123,1345,913,135,787,1877,91,1071,134,1114,1083,103,366,1780,1576,1003,527,1398,387,564,107,1087,1896,464,68,1307,1225,449,1443,1061,81,898,788,550,1384,316,495,549,1854,900,1530,596,326,1001,1113,133,450,186,1166,496,1296,1280,1430,1335,97,1077,1574,803,867,1783,1847,302,1165,185,1767,1832,23,840,1575,1291,1824,1760,1807,632,125,1105,839,1292,1288,573,621,915,1279,1368,1848,1784,345,1792,1782,1846,273,957,312,52,1032,65,1840,1602,1554,595,382,828,1475,532,1893,88,1068,473,521,574,622,959,1363,1040,593,1295,1224,493,60,1894,1454,1502,1474,383,308,1568,1755,474,522,1573,1364,300,1468,1926,629,1473,679,1592,148,1128,1097,117,985,743,1492,244,314,1660,1819,441,1362,1287,310,381,1724,7,306,594,325,657,721,1544,9,126,1106,713,5,649,529,987,914,989,315,952,494,311,386,10,243,307,298,1805,395,955,59,1949,1529,299,1870,1366,304,1444,27,584,1429,303,544,1773,1931,385,982,1127,147,1778,916,776,1869,1284,241,1936,1376,1081,101,990,1888,748,684,972,946,925,1063,83,676,1584,740,28,1067,87,698,1484,611,762,1743,1,934,301,511,1753,1601,1553,1839,1679,1759,1823,1728,1664,1361,1014,34,1831,1655,1282,1039,1719,346,242,1283,1921,1932,274,418,1610,1223,1453,1501,612,1326,1659,1294,1723,1397,512,305,1725,313,1661,797,680,1254,1903,1563,1286,744,827,145,1125,1590,859,906,29,33,1013,388,1290,44,1024,442,1765,1808,700,601,775,1060,80,1741,1510,1306,1677,933,1901,1281,609,764,1278,1656,603,1422,503,26,1720,779,843,1951,1952,309,128,1108,745,681,146,1126,851,1421,1582,1727,1914,1663,2,1018,38,1829,297,746,682,1757,1821,610,1726,1662,1950,109,1089,1523,1007,630,1589,98,1078,924,1521,1837,699,1325,763,786,1375,1935,747,1887,683,1124,144,1070,90,1253,1756,1490,774,1678,1742,501,892,1830,1221,665,729,140,1120,1902,1758,1822,922,1222,1806,509,8,530,850,1766,842,778,796,951,483,1886,1522,504,1008,858,849,1464,604,396,956,1717,510,1653,397,1482,1591,1581,969,1305,85,1065,1121,141,1754,1779,777,841,1293,907,860,444,1838,1524,799,798,1491,41,1021,1285,780,844,1640,675,739,852,1704,826,602,137,1117,1872,1365,738,1489,40,1020,674,737,673,1074,94,825,581,1122,142,1645,1609,1709,79,1059,970,1069,89,988,857,398,502,1009,1378,1564,1247,268,1562,1277,984,384,138,1118,484,1248,1481,1929,1123,143,889,77,1057,1289,773,891,1509,582,1583,1904,1004,1718,1680,785,1654,1102,122,1483,761,1119,139,1744,697,266,72,1052,949,923,267,950,541,795,1380,1423,921,43,1023,1632,1777,1696,650,400,714,668,944,658,732,722,24,1905,39,1019,1871,1930,1016,36,983,926,1424,1561,667,943,1099,119,1776,1885,731,1377,971,70,1050,543,1638,794,1006,46,1026,1702,730,666,905,4,1017,37,1015,35,716,1639,652,113,1093,1693,1629,45,1025,1703,724,660,1924,542,1630,1694,1038,1246,928,1100,120,1637,1775,1908,981,1054,74,1012,32,1701,73,1053,1774,583,1906,1631,1695,265,927,1463,1710,1646,3,86,1066,941,1923,1116,1907,659,71,1051,723,942,136,715,651,1245,399,443,99,1079,1647,100,1080,793,1711,1379,47,1027,76,110,111,1091,1056,1090,1028,1030,1055,50,75,58,48,1922,1648,1712,112,1092,318,1300,1303,320,1298,323,1304,324,322,1156,1302,317,176,1299,1297,319,1155,321,1154,175,174,1301,173,1153 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| **UFSIL** | 408,1043,1615,1961,1515,536,1605,1388,1505,636,635,1616,1387,1341,533,1516,1514,1962,625,348,535,1513,276,352,1062,82,416,525,918,432,440,882,818,1072,92,336,404,63,411,814,962,1386,1329,1331,1392,736,672,548,572,472,448,424,534,360,361,932,720,656,1707,1643,6,1911,728,1699,664,1635,1861,1797,1599,848,784,856,819,883,770,1499,1827,1763,663,727,1941,719,655,931,792,1112,1110,130,132,127,1107,633,1427,1451,1527,1551,1897,1419,1889,1339,401,619,1315,519,1415,1403,1389,620,1333,1835,344,520,212,1192,881,817,272,406,204,1184,1957,517,1919,617,439,929,919,1086,106,1391,725,335,661,1917,571,547,447,471,1943,717,653,917,939,93,1073,280,1715,1651,940,469,445,569,545,978,986,1191,211,437,430,333,409,735,351,1793,1437,1469,669,671,733,114,1094,1359,414,428,909,877,1771,356,1328,1535,1256,1769,813,203,1183,264,1199,219,1405,1799,1863,1395,1109,1111,129,131,96,1076,961,359,1393,1857,1947,1319,1342,332,1417,1739,1675,977,1409,1313,1371,1749,1667,1731,1351,392,1416,423,149,1129,116,1096,1813,833,1136,156,1340,160,1140,412,421,1372,1347,853,1425,1449,1890,405,1404,556,1525,1549,791,1148,168,769,364,227,1207,1606,1200,220,457,489,1216,236,1833,235,1215,1559,771,1942,1506,815,354,167,1147,1770,1560,1729,1665,1420,1355,686,750,1316,1135,155,1330,845,781,790,580,820,884,436,1531,1396,1614,1188,208,292,1431,855,291,626,30,1460,1735,1671,1536,456,1459,466,1748,1751,1412,1623,150,1130,357,1033,1687,1411,1750,1684,349,1555,1603,704,1909,768,1196,216,754,690,278,1569,1537,749,1867,1803,685,480,920,262,1455,1503,53,772,295,1497,256,1669,1733,260,422,1208,228,1705,330,1597,1899,1641,1747,642,1621,1139,159,1898,435,1685,692,756,1276,706,1104,124,1683,526,1697,948,1633,1321,689,753,688,1794,214,1194,1203,223,1652,468,371,937,528,277,1668,810,1732,628,705,1716,379,224,1204,380,1249,641,1360,1401,644,296,1795,118,1098,1272,752,255,634,1193,213,259,1337,391,1672,1736,1435,290,358,215,1195,1688,1613,708,1438,1470,1624,16,1436,269,1836,964,1552,1528,458,490,341,963,1348,413,1520,1713,896,1649,1812,1519,537,426,539,578,1517,1811,14,1518,836,108,1088,1488,703,1876,1588,1686,568,1236,261,538,1402,1255,876,1452,1428,767,507,329,607,11,1622,1730,643,293,289,540,1666,1332,1734,1670,1620,1259,1487,1587,279,605,1218,238,1134,154,606,832,375,755,691,1586,508,1585,608,1327,1956,425,1240,506,1815,465,1410,707,1146,166,1547,1465,901,566,1486,288,1383,505,225,1205,1480,402,1918,637,1485,431,1580,1761,1825,229,1209,62,257,555,390,991,407,1772,816,1145,165,847,783,57,869,805,1912,1338,1445,1920,687,1394,616,286,1636,153,1133,253,258,1356,499,1533,1700,751,1206,226,1352,766,895,485,599,1955,363,893,553,1275,516,1862,1798,403,1875,200,1180,1578,376,702,835,910,579,415,759,695,1447,478,554,1958,1618,1479,294,1132,152,976,1406,597,1187,207,1579,331,158,1138,880,999,1873,598,240,1220,1381,339,967,903,590,558,1860,1334,1343,263,217,1197,1369,248,467,567,888,824,434,210,1190,1478,1868,1804,1644,1882,806,870,1035,1708,1228,221,1201,1239,498,500,198,1178,1816,1577,1810,1752,846,782,600,1814,1842,1534,894,1545,1314,1495,254,1571,1539,1418,557,589,1202,222,1251,1826,1762,1619,875,640,497,1370,1311,639,1682,1617,1595,1323,551,638,994,1546,1219,239,389,565,1498,1883,479,451,19,477,55,995,1746,234,1214,287,515,1598,887,823,350,1450,1426,1466,1858,1042,1500,368,701,765,834,615,975,1496,577,1900,1235,1558,1596,1477,1557,367,831,1681,1874,997,911,830,453,1229,285,1550,1526,1446,1244,1859,459,491,623,575,1960,353,592,560,372,789,1212,232,662,726,1243,233,1213,1260,1548,523,475,1137,157,1910,195,1175,1944,1242,1320,1948,209,1189,1800,1864,908,455,1324,1828,1764,1252,163,1143,1471,1439,1600,454,1390,1706,429,1745,1271,1177,197,1269,1241,1642,1434,1309,1310,1264,562,410,654,718,1570,1538,1796,902,974,1144,164,1458,993,1210,230,1809,1841,1566,151,1131,998,930,1698,1740,1565,340,968,462,1270,879,1634,546,570,460,492,470,446,17,193,1173,1676,1037,194,1174,1789,1611,1266,587,1457,1217,237,54,102,1082,1227,481,334,438,591,559,1141,161,1048,1142,162,614,1231,1881,1511,1462,115,1095,829,854,18,461,1626,250,586,1230,487,1441,362,696,1690,760,838,177,1157,811,1179,199,1891,15,1268,252,618,864,1856,938,518,514,1433,1607,1312,433,613,452,878,1273,1413,1238,552,1507,284,1508,1358,973,1714,56,1045,196,1176,1608,1044,1849,1785,1448,1650,369,1928,861,69,1237,1954,670,734,1005,476,524,1049,1834,282,1233,1542,1594,812,808,872,1265,1047,624,576,482,1493,378,802,866,66,1879,251,1593,1382,1843,1350,486,1953,1185,205,992,677,1817,741,1855,513,283,218,1198,1456,1504,1258,247,1274,912,1432,1791,996,711,25,61,370,1494,1036,245,22,281,1786,1850,646,645,1010,709,1408,1234,710,67,1084,104,1414,12,563,585,945,1160,180,105,1085,1604,1556,1567,1532,51,1031,1041,393,953,742,1267,678,1916,1853,800,821,885,1461,64,1250,1322,1211,231,1788,1852,327,1172,192,463,1158,178,1802,1866,954,394,647,1336,980,187,1167,809,979,1164,184,377,1689,965,337,206,1186,958,1002,1349,347,1625,1467,13,1064,84,1161,181,1170,190,1818,365,275,1159,179,1163,183,693,1162,182,757,1344,862,1959,249,1257,1357,1046,20,1034,631,1232,171,1151,1691,1892,1373,1933,1149,169,1152,172,1627,947,1937,1226,531,899,1768,1150,170,328,1354,202,1182,1851,1787,1440,1472,1181,201,1385,886,822,1658,1722,873,1000,1721,648,373,1844,1029,49,1346,1674,1738,1657,1262,1946,1318,1934,1374,1540,1572,427,1692,31,1011,863,374,871,807,419,1058,78,837,1628,343,960,271,865,801,1541,712,417,935,1884,1101,121,1308,1407,1399,758,694,338,966,420,1367,355,588,1737,1945,1317,1673,1915,904,890,1115,1927,1169,189,561,1442,1925,191,1171,188,1168,1261,21,1880,42,1022,1938,1895,1612,342,270,1939,488,1801,1865,868,804,897,1781,1845,1543,1790,1878,874,1512,1476,1353,936,1820,246,1400,1913,1075,95,1940,1103,123,103,1083,1345,913,135,627,787,1114,134,1877,1398,1576,1896,1003,387,1071,91,68,564,1780,464,1263,527,107,1087,1443,1225,1307,449,898,550,788,495,316,1530,1384,366,549,596,1854,326,900,1001,81,1061,450,496,1077,97,186,1166,1296,1430,1280,1105,125,185,1165,1291,133,1113,1783,1847,302,1574,1767,1335,840,23,867,803,1575,1279,1807,1288,1292,632,1368,915,839,1792,573,621,1032,52,957,345,1832,273,1760,1824,1602,1554,828,1784,1848,1846,1782,595,1295,1068,88,312,1893,382,1475,532,521,473,622,574,959,1840,65,1363,593,1454,1502,1040,1894,383,493,1224,1568,60,1474,474,522,1364,1287,1755,308,1468,1573,985,629,1926,117,1097,314,310,1473,679,1592,7,743,1128,148,1660,1819,126,1106,1362,244,1492,306,300,441,381,1724,325,987,594,5,9,1544,657,311,989,721,952,529,10,315,914,1805,298,307,713,649,386,494,243,1949,955,395,1529,299,59,584,1366,1870,1444,27,304,1429,544,303,1931,776,385,982,990,1778,916,1127,147,1869,1773,1284,241,1888,1376,1936,676,972,740,946,1081,101,748,684,83,1063,698,28,762,1584,925,1,1743,611,1753,1484,1067,87,301,511,1601,1553,1839,934,1679,346,1759,1823,1655,34,1014,1719,1361,1831,1282,1728,1664,274,1039,242,1932,1283,1610,418,1453,1501,1294,1326,1223,1921,1397,612,1659,1723,1725,305,313,1254,797,1661,512,1286,1903,1563,680,744,827,44,1024,33,1013,1125,145,859,1590,29,1290,906,388,1741,700,1808,1677,1901,1510,80,1060,775,442,1306,1765,601,1656,1278,1720,764,933,1951,603,1281,503,779,843,1108,128,26,1952,1422,309,609,745,681,851,1126,146,2,1421,1914,1582,1727,1663,1829,297,1018,38,746,1821,1757,682,1007,1950,1521,1726,1523,1662,610,630,924,1325,1837,109,1089,699,763,1078,98,1589,1887,1935,1375,786,1253,747,774,1756,683,1678,1742,144,1124,1490,892,1070,90,922,1902,1830,501,1221,665,729,1120,140,1806,1758,1822,8,1222,951,530,1008,509,796,1766,1522,483,1464,969,850,778,842,1754,504,1886,1717,1653,604,849,397,141,1121,907,1591,1482,956,396,858,1305,85,1065,1779,444,510,860,1293,1581,1524,799,777,841,1838,798,1021,41,675,739,780,844,1491,1285,1640,826,852,1704,1117,137,1872,825,1365,602,1609,1074,94,737,40,1020,673,738,970,502,1489,1122,142,1009,674,581,988,398,1378,1059,79,1645,1709,1069,89,1564,1247,857,268,1481,1277,984,1562,384,484,138,1118,1248,889,773,1509,1929,1289,143,1123,891,761,785,1904,1583,697,1680,1004,77,1057,1052,72,582,1483,266,1718,139,1119,1744,1654,267,541,122,1102,949,923,921,43,1023,650,795,714,1380,1423,950,1632,1696,400,1777,658,722,668,944,732,39,1019,1930,926,983,1905,1871,36,1016,24,1638,1377,1702,1424,667,943,119,1099,1885,1776,1006,1561,794,731,971,730,666,1026,46,543,1050,70,35,1015,4,905,1639,1017,37,1093,113,716,652,1630,1025,45,1694,1703,32,1012,724,542,660,1054,74,1924,1693,1246,1038,1629,1637,1701,928,1100,120,1908,73,1053,1775,1906,981,1631,583,1695,265,1774,1463,927,3,86,1066,1710,1646,1923,1907,941,1116,1051,71,659,723,942,136,715,100,1080,1245,651,399,443,1079,99,793,1647,1711,1379,1027,47,1922,1648,1712,112,1092,48,111,58,75,76,1028,110,1091,1030,1055,1090,1056,50,318,1300,1303,320,1298,323,1304,324,322,1156,1302,317,1299,176,1297,319,1155,321,1154,175,174,1301,173,1153 |
| **LASSO** | 982,1070,90,1049,1521,400,1115,13,989,1599,282,1779,1696,1543,990,1016,444,562,529,1673,1512,657,1612,386,1882,1307,1829,986,544,985,1252,1921,1597,1323,1773,876,1007,1567,636,656,1609,355,27,127,304,67,1018,403,327,28,29,410,630,1062,609,981,1648,1611,245,1275,1255,1844,1045,1522,1825,790,457,489,57,1305,1615,1198,38,999,1009,1048,814,159,1019,39,246,1790,351,276,1508,1336,1510,1037,26,97,1701,1441,1026,8,4,1076,96,402,1256,1047,1327,1456,1451,716,36,696,810,908,857,550,1344,1610,256,659,1008,759,1328,1551,912,278,1660,1884,72,1613,428,362,1872,695,1465,255,1892,1439,731,1925,46,485,1020,7,593,1711,1516,1505,1389,984,1767,136,1917,851,589,1761,385,1537,1883,122,1102,24,1765,1340,1887,66,909,841,1700,1080,1678,68,1511,294,1918,419,1001,992,1841,1321,484,52,409,739,1188,995,626,41,1830,1263,1273,1347,346,1636,635,1707,1285,1241,1325,123,1926,1002,1789,1368,1946,40,1602,1542,1367,105,1182,12,721,998,1103,1381,284,1924,1180,1601,364,1317,411,557,89,777,275,332,1413,1391,20,897,1277,1040,1239,1021,285,345,1293,1915,903,1527,925,828,106,1430,1226,1,802,87,892,627,1088,1507,1712,866,1840,6,526,283,1400,363,1262,297,108,651,700,10,1380,328,107,1022,1768,1421,1067,280,1087,1911,1949,1525,1254,1114,434,356,1837,1267,281,800,91,1069,60,1709,1927,533,1539,1089,1640,525,1233,652,109,625,980,530,134,1224,449,1532,347,1871,1772,94,1608,1074,1555,287,1060,1311,1031,1237,376,1240,632,1635,1870,531,344,1705,77,1392,32,965,1071,827,633,337,782,1382,629,1656,622,51,574,1805,933,1269,1228,1566,118,1098,1326,936,1348,1605,1914,387,1318,1571,784,1541,1310,3,1093,849,1869,861,1377,113,1068,1406,1025,1549,1057,775,1641,1352,737,504,1063,273,628,1245,81,290,88,286,21,928,1443,42,234,103,1083,1251,1097,1039,1214,5,63,536,124,988,1385,1905,432,715,384,1095,1331,254,361,474,80,969,1113,1878,1341,1276,34,1014,891,45,1821,1757,83,341,902,779,31,1386,732,1011,843,1938,1104,1005,649,584,1716,1077,339,668,441,425,993,1499,1506,1419,450,78,1261,1908,295,1530,1139,1616,1004,723,1649,532,368,1442,1606,1086,462,18,1260,1652,2,951,1741,17,927,1893,44,848,1334,407,996,1839,958,1010,116,1384,1072,92,1064,84,1754,862,1753,1342,971,47,1603,1027,541,837,1274,309,1390,1651,1085,673,405,406,128,501,1860,126,667,1108,1235,1455,300,53,792,135,764,856,1324,1515,1281,1366,1190,1405,292,30,218,1444,1553,210,552,1106,1827,1763,208,1693,1554,1432,853,522,1058,55,71,1514,1289,1387,1360,291,64,248,845,781,724,1708,1454,274,1644,527,35,1501,1453,1333,1181,1315,1737,561,260,1078,1835,1015,1407,816,1632,452,787,672,416,1416,249,1948,1268,204,1242,1312,788,331,379,1846,901,1012,16,85,612,1697,59,69,1110,1820,130,1776,132,918,293,1112,1376,964,543,269,949,258,512,1383,401,1738,1945,461,1283,1766,1073,93,388,1107,624,509,1238,937,102,1096,15,583,524,863,476,864,1497,1094,343,987,1645,966,271,115,262,1467,859,1101,1742,1677,101,56,1909,1081,1361,354,1343,1234,1647,660,1079,289,99,576,1629,846,121,961,1502,1378,1365,312,112,1842,1932,1116,1034,1272,353,1271,1529,1065,1614,464,967,1607,396,1643,1053,1099,119,1061,158,265,1854,1082,1504,125,575,1429,264,243,367,1223,133,1431,1907,443,1356,1865,1565,325,1250,1322,658,1258,1891,1229,935,201,1346,997,868,114,634,804,1138,308,1801,380,1319,100,1249,1764,1105,1828,623,1676,1222,104,372,1024,1769,1084,523,1713,1264,776,1035,1184,1335,1509,1481,727,1675,73,1947,604,1489,1309,120,585,399,920,1724,79,383,620,1059,1704,1308,404,1912,956,938,1000,117,1306,1033,9,70,160,412,1257,408,131,528,535,1111,316,617,1109,789,1032,1637,1889,968,74,1437,1050,129,1265,1253,313,22,475,890,1225,1556,1604,433,1363,268,157,340,200,1137,1633,1243,1075,1244,631,1270,244,1329,983,1259,436,1388,1715,551,1266,82,1808,1739,675,889,427,1888,365,1920,1836,1503,1052,736,1046,760,1897,1006,542,95,1354,952,812,1886,305,1544,451,740,1824,1140,1054,1961,1885,884,1280,1720,1760,1469,1100,279,1740,65,932,1524,1236,330,1782,1699,426,98,1023,272,397,1043,381,820,338,1569,1092,977,521,1471,202,263,1913,43,348,296,713,352,326,520,948,473,1320,33,1941,1642,1013,1051,1936,1449,1910,839,1792,758,1832,1350,518,664,1424,375,858,1895,1404,694,1759,1330,1901,1698,1397,371,596,1600,720,1427,1425,618,1823,440,1500,1581,336,1408,1332,1630,503,1598,1856,824,725,1492,374,1950,888,191,655,650,798,663,924,366,1784,1848,301,674,1674,1756,905,1464,757,378,493,1803,1867,916,693,786,1831,728,1706,496,1498,1723,972,744,1417,1490,1295,719,970,665,1592,1819,791,519,1313,813,1171,1843,395,680,955,1937,619,913,945,1561,874,729,1695,931,714,193,1173,1694,840,854,1806,370,448,662,14,738,722,1631,472,1902,1894,1230,676,19,1221,621,573,487,943,811,1584,86,1590,1066,1461,1473,548,730,329,823,887,420,1770,1133,153,1003,1906,1582,54,1358,242,1702,1634,1206,735,671,1833,1916,1414,926,1639,1942,1881,785,1172,192,205,1185,1420,726,1466,601,950,991,592,560,1714,1944,460,226,1822,1758,923,492,1650,1484,679,572,549,799,511,257,586,1017,37,1589,422,795,666,1659,718,1940,486,1570,1538,1877,1379,1279,654,774,962,930,1952,1177,915,1036,197,277,1778,488,1638,1531,1526,442,1550,439,842,333,778,303,939,259,1470,1438,250,1149,169,867,803,171,880,1151,1227,288,534,25,1353,446,1287,470,1703,587,1935,1450,653,393,1426,960,877,661,1794,335,373,1375,570,743,261,1409,906,1923,546,1165,1349,23,463,1364,1482,697,185,1528,1552,429,588,1468,435,315,809,1568,1664,510,1422,1316,818,611,437,241,603,517,189,11,850,734,350,1292,886,1398,1838,398,822,302,1418,358,1169,1291,670,369,1728,1573,1960,1440,1928,882,1474,957,1314,299,418,571,253,547,1124,144,1722,1591,1044,1472,748,741,1574,1540,1710,1826,311,1572,826,471,1864,1800,1798,1862,447,424,1799,1863,1513,1788,855,431,203,1658,1845,1762,1401,953,1931,1393,1781,770,1904,140,1120,1797,1861,1646,1231,610,1428,1232,1852,1452,1179,199,495,1278,1128,1903,1793,899,821,885,959,1197,349,217,1415,177,1157,1296,148,684,1802,1866,922,677,445,1491,796,669,761,252,413,377,1818,1817,1161,181,1178,198,1134,360,1890,717,469,139,154,1783,921,1119,1725,1847,929,270,783,342,1807,847,1655,1680,1859,1192,483,1351,1357,1898,942,1337,879,1462,194,1174,233,564,1213,872,1399,940,808,1777,1958,762,1122,142,165,1183,904,1563,1755,1899,733,681,1493,438,1661,482,1780,1957,1396,875,595,1290,1362,468,898,190,1879,1576,334,1855,1816,1145,1175,917,232,1212,155,1135,1170,195,1718,224,1204,1654,1186,206,900,209,747,1744,870,1189,682,1339,806,1205,225,307,1719,1951,683,1804,1868,569,545,581,1412,1943,141,678,590,1121,1166,186,558,1359,745,1476,1934,698,1791,1880,860,817,394,954,458,1129,149,147,873,881,582,772,1374,807,1663,1853,1288,170,1150,878,871,1857,490,1282,196,1562,491,459,1160,180,746,602,415,494,1127,138,212,1176,1118,742,1447,994,819,883,221,1583,1201,1130,150,780,844,1939,214,1900,1194,502,1727,1483,1547,1403,794,1795,238,1218,1930,1774,1136,306,156,1117,838,137,1167,187,417,1679,423,1209,229,963,222,1593,1355,1475,1202,1834,1345,359,143,1123,563,1545,1402,565,769,591,559,1038,1575,1929,314,568,1142,1141,161,1203,223,162,1717,1653,1919,1564,836,267,513,1041,763,944,1786,1850,1158,178,247,237,1217,1662,1338,456,1191,211,911,1858,184,648,145,1125,1164,914,466,516,1411,978,910,712,430,1771,1548,146,1126,481,1785,1849,907,1922,793,310,835,1247,1775,616,1749,219,1787,357,1199,1851,919,1162,1152,172,1146,815,182,167,1147,166,947,421,797,1750,298,556,613,163,1143,1743,1494,1796,1463,1159,179,594,168,1148,1395,946,852,414,1284,382,979,1448,1445,465,1163,183,1595,941,865,801,1446,699,1721,1657,1286,834,151,1131,1460,49,1029,1210,230,1876,1726,1815,1495,61,1594,1436,1423,833,1410,1294,1394,1933,1373,1896,1496,1215,235,392,1625,1953,1187,207,1523,934,1689,1372,1596,58,1090,50,1091,1056,48,76,1030,1055,75,1028,111,110,1813,1959,231,1211,1560,1248,1751,1752,480,1536,251,771,1956,805,869,773,829,1814,1196,216,974,768,580,1433,566,1371,1748,1246,266,1435,1200,220,825,704,1684,515,514,973,1626,615,614,1812,1690,1628,1457,646,896,1692,710,1042,1546,1168,188,895,688,579,752,637,640,215,1195,455,454,1559,751,1955,479,152,1132,1731,467,567,1459,687,1667,213,1193,497,597,1477,976,766,711,391,1810,1729,1665,702,453,1478,578,227,1207,1618,1577,645,1578,1954,1144,164,709,1691,1219,239,647,893,390,1747,1873,1434,1617,832,692,756,1736,1672,1683,1668,598,1732,498,1809,555,638,1627,600,500,1745,755,691,1535,1735,1671,1681,1486,505,605,1586,478,1480,707,1485,1580,1585,643,1370,1733,1669,1533,1557,506,606,1730,1624,1620,1666,599,62,540,508,608,1875,1685,499,607,507,1874,1623,1687,1488,1588,1621,1688,1587,1487,830,1619,538,765,1518,1369,477,644,1686,1622,1670,1734,1534,1558,577,701,1520,708,1517,767,537,831,539,1579,1811,754,690,240,1220,706,703,1519,642,389,975,894,639,753,689,1208,228,1746,1682,1458,1479,705,641,686,750,554,1216,236,685,749,553,320,1297,317,319,176,1298,324,1156,318,173,175,1153,1300,1304,321,323,1154,1303,1155,1299,1302,1301,322,174,1962 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**Supplemental Table 5**. Sequential arrangements provided by different FSAs for dataset TD01.

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| **FSA** | **Sequential feature ranked by FSA** |
| **ILFS** | 740,676,952,424,146,739,675,148,908,828,928,652,716,484,182,724,205,944,776,177,660,274,683,796,747,327,732,69,668,840,951,898,254,808,872,748,264,742,678,540,971,440,336,684,287,923,900,141,416,409,892,891,849,216,935,536,941,584,273,745,681,175,408,600,332,873,932,173,500,187,460,492,543,664,728,345,328,827,766,839,737,913,143,673,966,338,280,310,512,916,643,199,647,139,611,777,841,387,567,612,520,687,751,707,863,286,587,258,895,496,674,720,738,370,758,555,911,694,905,711,656,824,888,976,374,578,419,657,691,755,620,721,560,592,15,554,285,266,314,934,960,319,60,741,607,472,548,572,448,282,879,699,320,583,180,537,281,418,779,843,919,384,444,456,591,559,54,250,763,702,904,298,771,897,556,757,677,940,303,442,857,914,975,55,693,972,851,544,330,654,718,208,504,7,803,867,284,184,798,775,249,726,662,830,874,700,764,980,160,318,810,896,436,925,57,836,880,906,263,746,53,950,245,337,965,604,682,930,455,432,804,868,503,377,946,729,392,322,665,713,949,277,147,649,736,870,806,672,596,599,603,862,261,629,176,396,956,383,378,979,936,302,835,326,701,708,317,618,67,752,957,648,819,883,329,670,306,939,262,533,549,924,348,964,809,279,344,712,815,276,876,734,692,756,389,272,358,688,292,491,459,210,933,527,518,449,495,811,246,644,875,369,829,786,903,595,887,823,213,959,441,283,799,295,478,794,915,252,304,812,816,800,832,628,638,958,788,453,294,313,627,293,963,901,535,661,725,820,884,209,907,733,243,669,288,468,856,802,866,321,528,886,822,443,390,66,242,538,481,854,974,202,253,340,968,853,760,653,717,954,394,454,938,696,511,476,524,529,573,621,576,624,552,534,452,487,325,334,438,855,420,417,244,373,507,429,831,899,929,241,278,323,305,765,790,625,433,461,525,865,801,977,781,845,553,744,380,680,864,359,372,260,580,331,376,698,902,483,663,727,762,877,513,774,931,237,564,772,860,918,719,614,655,634,978,789,769,514,637,532,894,658,722,401,659,530,632,723,651,715,962,473,521,920,265,882,818,236,814,890,439,335,619,633,519,256,826,467,973,499,838,255,475,523,482,447,471,570,546,927,623,575,630,833,571,547,301,333,437,470,446,953,393,859,821,885,797,316,551,451,385,268,912,710,945,480,414,566,430,188,465,550,613,324,312,140,144,948,178,793,568,257,229,308,463,61,488,889,714,650,300,238,606,667,145,861,646,371,586,562,636,153,735,259,164,172,731,834,813,581,165,671,508,181,157,837,221,247,423,19,197,137,375,388,450,422,62,622,574,291,462,183,690,754,407,217,186,189,635,415,464,413,297,150,168,156,220,937,203,466,617,218,404,561,161,169,231,784,848,201,204,12,142,486,893,474,522,234,138,159,926,185,230,299,850,750,565,686,341,155,193,778,842,167,227,479,192,878,163,171,309,869,805,506,792,151,198,598,311,239,56,212,206,642,386,196,158,179,558,590,11,563,224,154,166,269,296,152,706,517,631,531,219,403,609,379,352,65,215,497,489,457,26,428,770,782,846,791,190,149,267,704,847,783,233,458,490,225,382,162,170,434,251,207,361,412,191,381,509,343,961,858,211,18,411,695,759,271,20,315,22,498,21,640,602,194,477,515,200,615,174,135,226,232,240,526,339,967,364,485,626,13,922,505,582,360,502,909,222,421,400,577,768,730,445,469,426,545,569,493,539,346,363,666,270,817,881,541,501,410,785,597,917,342,639,395,955,588,969,3,435,368,589,557,593,871,807,25,24,616,223,307,402,494,214,608,947,431,601,910,248,516,605,397,362,585,594,235,542,349,399,921,767,347,427,275,703,28,351,773,391,697,825,64,1,195,95,23,4,610,761,689,753,844,780,645,709,795,743,14,641,425,8,10,679,685,749,350,705,787,365,942,9,68,510,357,405,356,366,92,579,290,133,970,353,2,16,355,129,131,354,94,96,83,367,852,100,51,44,406,82,42,71,40,126,128,91,38,33,104,123,943,134,108,398,116,981,84,89,102,105,27,107,127,86,103,43,50,59,78,101,34,63,49,120,124,79,88,17,80,115,114,6,130,132,119,5,29,118,98,106,72,97,121,39,47,109,125,81,90,70,87,37,73,41,117,112,46,58,48,76,75,110,111,36,52,228,74,99,136,77,122,35,85,113,93,45,31,30,32,289 |
| **ReliefA** | 95,121,124,119,63,103,91,80,96,83,71,105,81,108,78,116,84,229,130,132,82,77,72,115,123,88,85,129,131,133,100,89,126,64,177,199,239,202,163,171,800,167,155,61,235,159,203,364,191,223,59,231,400,180,197,51,205,230,207,29,796,157,668,213,944,181,153,732,402,165,198,28,184,187,67,201,219,835,182,227,416,169,161,149,144,214,27,140,772,432,384,839,928,196,328,513,879,178,148,267,716,1,206,652,189,94,241,544,444,176,823,887,948,356,38,210,906,44,244,25,24,204,146,151,684,748,428,613,816,863,724,188,107,792,784,848,399,874,831,891,660,794,325,106,972,614,232,700,398,168,156,288,166,154,160,910,102,170,162,172,164,764,139,412,40,407,90,158,466,143,637,125,352,942,924,462,648,833,837,785,69,812,388,209,56,712,566,336,440,485,562,505,117,799,411,147,776,320,676,740,889,506,877,486,101,952,461,93,324,514,586,606,264,756,692,280,946,208,194,458,490,498,109,828,558,590,798,598,17,332,190,483,484,638,179,443,827,896,221,633,543,672,152,644,215,708,457,489,404,736,173,548,572,142,856,174,245,448,472,528,497,688,243,628,971,809,801,865,752,217,973,224,864,634,141,636,666,138,960,715,943,237,723,651,730,200,659,927,137,307,584,186,250,54,682,746,104,46,315,667,804,868,768,731,704,583,908,775,360,419,327,981,820,884,747,60,683,465,192,193,538,236,977,284,902,909,585,311,836,791,424,749,300,685,771,605,961,175,926,145,670,510,920,397,493,734,218,49,932,656,720,895,518,312,509,220,504,705,568,62,745,826,681,618,641,408,815,557,589,47,610,604,664,728,873,225,455,840,898,496,597,699,905,620,808,872,501,50,632,494,195,795,520,917,536,376,532,26,947,66,763,774,292,596,319,714,829,923,650,930,33,293,216,817,881,609,396,956,418,468,654,718,19,23,561,118,593,594,348,183,211,276,964,876,880,318,362,892,272,6,372,726,344,662,913,601,689,753,299,329,702,769,502,647,512,3,212,256,303,442,540,951,234,261,500,260,434,813,150,565,738,830,674,630,564,744,680,711,460,492,797,380,861,14,854,11,782,846,420,722,242,403,893,316,658,600,950,897,470,446,226,308,456,431,766,291,135,612,560,592,282,301,786,368,323,281,537,900,602,975,270,570,546,92,940,342,914,304,392,363,252,48,75,76,110,111,957,246,248,530,851,555,436,340,968,958,249,760,696,755,691,395,955,240,576,624,709,508,903,675,739,53,645,915,811,862,488,268,358,15,608,476,524,552,478,912,588,918,945,805,869,277,707,289,415,806,870,452,233,899,464,257,818,882,438,334,751,765,643,283,916,963,253,445,469,687,422,286,350,853,802,866,821,885,878,185,535,779,843,42,832,533,517,642,959,834,390,18,974,686,904,569,545,750,556,875,120,467,706,617,770,355,640,814,113,425,473,521,933,7,679,554,698,259,761,669,285,302,503,743,697,733,511,787,427,762,976,437,333,55,701,279,338,966,580,480,890,322,690,754,616,646,603,737,673,263,781,845,717,653,331,406,929,296,611,725,710,516,661,822,886,758,922,222,949,694,789,921,852,295,453,534,780,844,313,410,495,838,454,477,305,367,287,627,385,527,449,567,937,824,888,258,978,326,387,907,773,379,678,339,967,370,626,742,366,435,631,353,783,847,265,939,860,254,463,695,595,759,391,531,321,351,970,394,954,378,450,979,423,255,349,238,474,522,573,621,807,871,359,5,563,375,374,578,574,622,526,550,122,341,790,9,582,269,12,381,671,935,433,735,22,553,529,97,855,825,21,98,819,883,426,57,371,849,20,551,962,309,810,317,931,549,655,719,575,623,383,777,841,938,788,386,663,727,919,479,297,65,579,266,499,451,459,491,859,482,507,354,278,607,487,894,335,405,587,559,591,475,523,439,599,901,86,619,262,519,941,228,343,251,271,547,571,803,867,542,471,447,389,330,936,79,577,68,306,857,294,369,629,43,911,382,793,314,693,757,274,346,729,665,357,421,337,965,969,934,625,417,539,134,377,925,8,10,409,347,275,980,767,525,31,703,649,713,365,290,298,430,373,481,635,345,721,657,2,273,741,677,247,58,310,393,953,361,850,778,842,858,13,4,36,401,581,429,112,413,16,441,35,34,45,74,414,541,515,615,136,52,37,639,128,114,127,99,87,39,41,32,73,30,70 |
| **UMCFS** | 430,964,252,877,426,878,212,876,178,543,248,826,193,180,244,436,944,891,900,255,284,583,541,977,191,15,213,64,960,441,609,17,211,943,913,535,415,46,827,629,416,196,23,969,204,442,880,209,279,483,300,874,52,218,136,4,860,387,933,54,853,945,22,808,7,68,890,919,858,386,71,632,341,914,286,872,9,699,89,951,795,908,763,60,799,388,542,58,43,399,246,855,57,202,158,850,800,630,51,35,911,791,873,12,804,868,910,528,99,862,249,723,69,657,36,3,949,297,819,828,461,464,125,348,462,247,417,698,562,219,194,631,128,113,375,777,841,31,326,217,634,352,797,304,564,59,285,510,971,86,55,275,883,420,905,504,907,863,104,56,50,233,544,41,206,909,5,190,418,534,385,195,294,764,181,785,773,270,224,980,67,241,903,277,796,44,787,383,276,429,627,274,74,942,700,428,268,273,373,397,368,126,721,411,801,792,312,259,978,793,6,91,403,78,786,135,96,818,363,970,18,963,20,822,582,525,866,346,825,802,518,865,231,886,882,532,633,49,287,805,70,133,635,809,811,869,842,778,14,434,857,435,739,650,813,774,16,675,101,39,849,408,77,353,957,824,309,37,888,100,65,73,32,789,584,72,901,34,116,676,260,958,419,784,269,192,526,536,66,123,79,761,83,852,342,531,481,936,134,409,848,790,780,401,463,732,823,844,431,668,892,400,887,295,33,972,410,935,245,981,1,859,84,906,915,530,338,112,407,897,288,484,362,98,946,611,13,443,19,432,199,2,256,109,45,926,879,105,325,902,628,821,115,404,885,959,107,788,108,117,210,412,367,966,345,402,343,129,364,347,93,303,95,588,131,130,962,42,92,488,122,114,328,313,282,106,798,896,97,928,864,812,102,88,912,305,836,922,103,875,558,94,197,302,40,264,925,226,590,308,398,349,511,366,121,280,265,487,21,182,924,11,810,527,203,361,118,587,200,81,680,85,961,856,63,744,127,918,889,663,727,931,724,618,660,719,655,124,266,132,619,30,519,422,735,281,358,594,934,354,671,458,490,151,948,697,740,53,734,670,899,344,674,738,257,776,851,201,610,714,10,87,947,941,716,293,38,47,29,533,921,783,283,847,667,477,731,816,24,806,870,803,867,90,405,120,119,253,835,923,652,840,291,647,316,82,711,636,208,861,221,356,365,406,820,254,884,80,184,138,271,395,955,384,220,186,772,854,142,332,315,27,331,307,146,514,560,188,592,263,529,278,460,492,381,832,746,311,752,561,682,688,604,939,425,794,198,737,904,743,152,673,355,374,769,616,775,679,382,940,459,491,975,225,61,920,917,421,555,262,814,516,614,513,577,414,299,216,838,159,586,330,137,839,672,455,301,952,289,665,227,758,729,486,556,979,898,394,954,559,591,736,694,350,189,228,392,579,640,496,169,871,807,625,232,638,446,470,141,427,433,465,692,756,830,360,742,155,468,494,815,357,520,581,503,620,829,546,570,781,708,666,845,393,359,953,678,512,26,351,143,644,552,296,139,170,48,238,75,76,110,111,377,205,148,565,613,333,479,475,523,235,437,390,677,712,452,472,448,258,167,310,161,704,733,389,493,575,623,251,572,548,730,741,157,686,239,895,669,237,456,376,750,314,765,473,521,449,569,545,568,596,172,601,187,444,768,149,340,968,450,612,171,770,973,451,578,551,379,701,576,624,696,242,501,831,760,648,662,726,438,766,298,396,240,833,956,974,292,474,684,522,480,215,334,693,749,553,509,722,327,457,489,745,685,207,391,600,476,147,524,702,500,929,748,718,617,757,164,445,469,598,166,754,690,654,706,681,930,413,837,453,306,250,637,717,495,642,371,498,894,160,580,380,689,753,751,976,653,62,573,767,950,893,621,549,932,705,471,447,508,608,154,162,497,687,658,639,557,589,550,597,641,144,272,725,539,547,571,179,267,540,466,140,566,183,370,615,236,707,482,554,537,145,661,505,605,759,230,643,440,214,538,369,834,606,574,622,506,243,223,478,607,938,515,771,153,563,507,695,185,602,336,290,843,229,779,599,329,156,651,728,163,25,664,168,517,499,261,378,165,567,320,603,659,645,649,595,177,174,710,324,234,703,747,709,323,28,339,927,318,337,965,967,713,683,646,691,755,454,817,424,881,222,626,423,175,150,720,8,321,322,656,502,335,585,319,715,317,762,916,372,176,485,439,937,782,467,846,593,173 |
| **UDFSA** | 973,976,980,977,915,328,815,907,969,136,761,69,374,31,248,816,891,281,39,581,427,821,5,885,286,420,947,879,14,123,461,47,365,3,544,658,871,218,635,124,404,70,807,963,398,283,64,99,18,364,810,978,799,84,52,806,82,877,526,906,26,66,870,78,17,400,270,942,85,135,137,24,103,636,941,80,65,51,295,972,402,22,368,201,386,63,2,385,28,83,463,939,40,411,657,97,19,864,543,793,529,944,45,12,134,462,4,698,913,412,128,464,924,90,935,527,892,410,425,418,945,362,118,852,632,79,628,68,923,800,101,354,77,762,928,73,783,98,927,798,254,42,528,105,241,363,109,106,141,93,855,94,115,936,33,911,7,525,121,126,562,809,246,16,194,634,35,74,405,89,87,122,779,697,119,102,29,387,850,58,902,541,96,30,847,6,113,346,786,715,825,844,785,116,875,652,114,817,881,9,843,399,851,348,349,716,780,189,276,964,88,403,59,108,409,921,92,633,401,125,32,912,933,840,908,431,127,517,67,408,721,130,407,91,778,117,353,205,38,627,95,244,619,722,663,934,21,190,842,788,245,193,586,617,132,274,81,444,441,129,532,272,41,415,1,344,406,519,100,732,131,531,296,287,869,486,291,255,981,252,361,805,920,631,723,342,659,104,651,107,660,140,773,873,854,849,20,269,367,971,285,771,345,204,331,57,273,148,352,629,668,355,357,859,44,719,655,948,56,421,797,626,960,249,144,501,724,217,905,589,341,260,727,898,443,366,585,931,790,787,419,263,681,221,812,184,504,961,557,120,826,862,820,196,841,772,858,823,884,777,282,351,713,887,195,180,326,889,745,794,542,256,661,649,919,775,509,469,839,903,72,774,278,292,510,133,179,674,445,604,979,523,946,796,653,394,475,569,545,954,138,883,725,953,434,952,899,897,738,795,867,917,393,146,672,375,764,667,746,583,792,610,433,876,735,676,929,432,533,86,210,742,866,303,682,673,819,183,678,950,932,359,949,493,791,10,60,625,814,547,258,737,373,802,901,720,53,671,23,951,417,551,675,423,803,714,728,142,740,447,700,575,571,886,271,822,343,801,650,865,731,739,225,471,197,736,214,940,656,490,451,458,301,316,623,457,253,837,489,356,863,182,827,236,684,149,520,325,177,664,49,160,199,717,748,188,890,601,558,226,590,496,234,620,312,955,262,465,669,257,918,741,733,811,958,416,938,232,593,835,172,874,424,596,27,261,677,259,145,200,535,279,609,967,853,395,347,824,233,330,888,770,251,275,397,696,339,776,294,968,340,759,957,760,308,695,914,55,437,36,880,512,379,857,242,439,426,71,828,290,333,181,536,371,335,561,264,298,223,910,612,900,485,388,143,268,878,212,304,937,139,422,846,332,782,916,440,358,428,436,483,208,503,336,297,435,203,169,959,694,925,758,147,187,624,576,280,476,524,904,836,250,922,699,277,372,833,502,487,370,552,452,818,882,15,860,157,683,563,966,338,377,747,307,220,243,231,13,300,784,848,763,329,602,467,360,185,743,186,495,293,481,305,679,970,603,191,25,170,309,158,548,572,472,448,327,459,491,442,460,492,511,592,560,613,832,804,868,37,289,265,222,712,310,752,61,845,781,284,383,466,688,564,313,315,584,813,872,808,153,514,378,156,595,8,587,152,228,693,207,477,757,54,648,438,666,730,751,687,161,229,288,311,334,838,213,337,965,559,591,202,709,611,211,192,645,267,154,670,515,662,726,734,546,570,654,718,494,369,446,470,206,380,165,449,566,171,164,893,930,224,926,11,482,178,565,396,956,168,473,521,198,534,162,384,235,549,861,159,150,594,573,621,577,266,302,166,615,567,834,789,215,895,765,381,830,484,62,550,680,578,974,744,646,579,685,766,240,749,390,711,614,151,894,710,237,896,769,513,702,704,478,429,350,975,637,692,756,238,588,768,856,618,701,209,430,155,639,456,75,48,76,111,110,219,647,708,488,568,389,516,582,553,479,413,616,644,518,50,909,453,829,691,755,450,622,574,163,643,630,707,216,468,167,376,314,230,753,689,382,555,943,391,454,597,962,729,497,665,640,641,705,392,498,306,522,474,598,703,500,299,638,600,767,556,530,554,499,754,690,414,239,831,455,599,506,686,606,750,247,539,227,605,176,642,323,505,480,537,706,317,580,507,320,318,173,324,321,607,322,319,174,608,508,175,540,538,34,43,46,112 |
| **LLBCFS** | 408,407,981,406,405,108,134,92,118,124,80,85,625,82,116,123,104,525,105,348,120,133,129,131,276,78,98,95,81,409,115,24,101,106,63,90,636,84,94,125,126,401,626,114,93,103,102,526,79,121,127,83,344,275,347,272,128,97,410,361,88,44,117,122,635,341,269,270,633,342,16,87,908,77,628,343,271,528,362,634,627,89,527,109,29,91,42,74,28,27,40,402,412,96,1,531,631,428,157,367,364,51,356,54,657,721,649,713,404,952,672,736,889,26,787,30,892,375,328,13,532,475,523,575,623,632,352,451,583,676,551,740,932,656,861,720,327,354,620,520,18,800,351,664,728,907,56,55,396,956,695,759,948,476,524,426,788,576,624,716,541,368,652,744,385,925,680,7,353,425,339,967,386,536,452,349,724,856,660,552,906,517,379,617,12,395,955,350,376,400,70,46,5,655,719,928,158,733,669,518,663,727,9,119,618,929,931,619,951,35,519,340,968,930,484,440,130,132,100,717,671,653,935,735,60,859,779,843,851,57,464,725,661,760,718,696,654,734,584,726,662,670,417,544,860,336,444,388,34,972,729,665,19,781,845,384,784,848,462,743,572,548,448,472,33,25,679,783,847,863,280,326,363,828,31,732,668,15,798,86,403,924,469,445,437,849,545,569,786,345,273,777,841,700,53,333,857,937,789,764,946,853,796,791,776,439,547,571,471,447,945,335,38,3,939,397,264,199,107,332,850,971,778,842,20,200,10,534,658,650,714,722,371,438,543,159,334,858,898,546,570,470,446,699,855,780,844,947,383,970,382,292,359,852,763,231,423,926,373,969,357,944,278,421,365,23,411,933,958,387,802,866,52,381,279,799,242,815,360,914,934,419,562,424,171,21,782,846,483,232,723,659,715,827,651,927,854,443,435,416,442,281,17,909,542,441,297,793,730,840,666,191,903,432,243,816,198,823,887,427,355,256,821,885,785,177,905,262,296,330,260,698,66,936,604,399,762,309,184,250,473,521,797,474,522,611,288,811,922,862,450,263,573,621,461,923,964,564,574,622,582,941,550,331,196,14,739,155,197,481,258,449,420,667,603,959,812,337,965,530,549,2,757,693,586,415,731,418,675,790,244,511,248,630,504,810,880,254,135,246,814,612,178,874,771,809,738,8,674,181,501,346,274,772,509,293,950,290,4,697,61,313,761,377,305,482,369,486,900,287,463,485,245,300,195,938,897,209,512,151,201,6,921,316,22,503,561,940,601,180,366,910,179,609,629,338,966,962,457,489,758,694,393,953,192,235,915,160,529,585,433,563,436,304,960,979,770,431,677,822,886,741,153,557,589,183,68,312,283,394,954,308,204,193,493,434,358,167,294,291,59,422,917,413,875,533,169,803,867,380,558,590,229,69,295,535,285,683,747,876,67,977,303,163,942,806,870,742,374,813,282,678,301,864,648,596,899,458,490,378,746,233,370,682,284,901,593,139,775,980,595,919,794,214,916,817,881,712,325,253,143,252,145,247,241,299,372,466,302,961,277,581,911,203,773,286,912,142,187,826,496,918,138,255,825,210,795,172,957,217,259,836,873,265,913,804,868,824,888,213,745,211,681,588,257,495,398,268,165,488,289,566,182,208,136,891,141,148,963,137,502,455,510,140,146,808,872,820,884,819,883,144,392,64,878,920,212,837,311,230,225,194,156,610,249,602,391,555,879,161,805,869,769,818,882,479,480,890,261,513,314,237,310,807,871,580,839,306,239,190,205,456,223,514,329,774,150,185,767,560,592,877,218,703,838,556,494,579,460,492,647,147,170,978,792,614,215,613,414,149,227,186,468,220,154,594,188,315,11,168,298,477,565,768,238,711,559,591,465,202,266,704,943,65,587,568,164,949,975,902,487,429,835,688,430,752,453,673,737,216,834,206,459,491,166,896,454,832,646,578,831,390,389,801,865,684,748,895,467,207,710,765,904,162,307,701,645,833,516,709,152,766,756,692,228,515,702,221,616,251,973,894,224,222,638,267,219,615,976,830,226,577,240,189,478,637,567,234,685,749,644,893,45,708,553,236,554,974,687,751,829,497,62,686,750,597,691,755,640,498,598,753,689,754,690,705,641,99,643,707,639,642,600,500,706,599,499,506,606,505,538,320,605,176,73,508,608,321,174,540,317,537,324,323,318,539,322,507,607,319,175,37,173,32,47,39,36,49,112,113,41,72,71,58,50,43,48,75,76,110,111 |
| **CSFA** | 374,557,589,976,318,430,597,194,70,297,586,332,197,205,894,532,832,587,794,629,12,289,164,172,98,301,211,155,461,827,926,201,810,425,560,592,93,619,322,790,82,420,366,937,613,942,365,647,294,901,651,806,870,213,697,714,727,51,732,102,531,434,699,203,34,377,562,793,835,969,106,162,170,167,711,245,648,130,132,408,896,475,523,27,906,119,361,795,493,800,423,941,715,902,811,199,413,772,15,740,857,89,510,133,184,435,716,64,553,151,861,534,99,181,482,65,417,667,381,230,465,21,951,288,525,32,862,367,573,621,508,253,655,72,746,321,567,43,316,695,722,67,549,263,428,771,266,61,507,414,917,125,56,821,851,885,389,972,118,950,286,632,654,691,755,468,519,279,466,35,725,156,284,120,215,581,600,945,627,730,394,954,209,282,596,487,572,548,467,700,19,702,460,492,518,229,643,168,422,837,33,254,558,590,49,246,360,48,75,76,110,111,670,173,6,684,387,378,114,80,375,292,354,943,227,179,22,513,11,362,88,915,787,278,474,522,959,58,540,9,346,433,641,317,228,274,323,450,907,38,544,743,653,406,713,723,126,889,241,319,514,247,309,454,661,217,444,718,187,582,533,264,773,779,843,554,603,314,456,353,642,204,611,290,349,873,212,386,463,733,880,717,645,55,190,948,963,140,7,13,1,574,622,47,737,891,538,18,178,249,327,975,183,462,223,694,529,736,81,819,883,326,368,578,324,45,520,174,207,649,838,550,660,750,30,698,486,721,924,59,300,485,517,608,17,16,84,345,8,124,10,157,432,704,298,145,307,123,761,50,497,731,129,131,146,62,618,443,376,644,295,908,625,918,79,20,144,66,115,817,864,881,927,306,791,244,503,214,336,277,556,356,978,453,855,763,188,100,78,270,136,568,122,315,193,921,404,946,631,933,599,856,235,688,666,601,109,850,63,938,107,783,847,805,869,719,484,958,268,563,121,221,397,320,191,238,31,657,724,664,663,650,458,490,796,878,683,929,310,86,692,216,756,5,834,977,395,955,275,577,331,488,25,24,751,224,614,163,171,135,426,357,95,239,742,962,4,411,818,882,158,630,195,429,658,759,825,541,401,160,113,101,495,134,685,258,775,141,267,449,690,754,710,218,261,900,678,259,373,561,516,69,29,504,42,852,960,52,705,305,496,73,459,491,293,149,668,410,478,620,895,633,472,448,768,37,2,980,747,830,396,956,686,824,888,257,494,403,741,944,236,571,225,547,604,23,689,930,753,351,892,90,840,196,473,521,570,546,148,804,868,91,542,890,287,580,479,859,501,785,677,252,243,202,499,905,57,583,679,480,370,175,342,672,781,845,116,41,665,39,380,552,438,405,559,591,416,128,87,424,442,879,385,744,358,914,669,71,813,961,260,232,509,681,615,675,105,402,606,272,777,841,265,923,237,369,142,528,452,935,575,623,302,769,104,551,595,919,44,784,848,334,565,256,515,607,308,729,626,940,234,579,652,281,936,530,409,758,154,786,77,464,96,137,662,807,871,801,865,392,200,860,812,707,899,659,726,60,340,968,329,400,350,28,803,867,934,269,391,752,338,966,337,965,920,815,382,537,682,637,344,712,708,535,932,875,734,54,636,831,469,445,701,355,628,833,364,925,388,112,117,273,931,706,341,418,415,780,844,242,333,828,823,887,588,233,635,383,593,159,505,210,802,866,564,904,262,226,85,220,53,646,822,886,797,673,40,512,897,829,767,299,436,757,789,898,291,304,186,739,500,127,3,192,849,798,745,206,674,709,219,250,255,68,928,876,979,539,147,152,506,952,97,949,231,285,303,455,248,440,735,912,169,176,161,182,703,770,283,74,330,964,609,640,594,555,296,836,398,809,765,412,384,153,83,393,953,576,624,240,639,947,911,820,884,208,638,788,198,792,676,36,407,108,177,470,446,371,877,347,427,26,617,276,311,728,971,602,481,180,498,973,605,874,348,543,909,893,764,671,610,431,390,476,524,585,451,808,872,372,251,165,782,846,858,816,437,359,312,325,477,957,693,150,863,419,457,489,511,379,814,853,903,139,680,826,103,687,339,967,447,471,612,166,748,14,910,280,421,760,352,720,313,94,138,974,776,854,441,483,222,778,842,92,981,634,766,189,399,363,46,271,656,502,799,922,696,545,569,439,970,536,143,526,762,527,913,738,566,598,616,185,584,328,774,749,839,343,335,916,939 |
| **FSASL** | 408,635,981,536,636,407,534,625,116,525,416,411,535,432,533,362,352,818,882,409,672,736,918,817,881,440,336,348,130,132,961,428,883,819,276,356,361,402,917,349,962,791,725,661,929,939,717,653,360,814,931,548,572,938,626,655,719,472,448,663,727,656,406,932,847,783,720,424,634,909,354,617,733,669,63,517,619,948,412,519,425,526,255,426,160,333,664,728,437,280,259,919,279,978,331,351,910,350,940,447,471,413,263,124,547,571,156,421,735,291,671,429,964,295,277,662,789,726,168,792,569,545,155,278,884,820,6,334,159,438,862,446,470,200,770,167,469,445,357,546,570,718,654,815,466,69,518,285,436,620,358,415,618,222,375,401,217,930,423,212,457,489,261,616,379,359,556,214,516,430,392,439,580,292,17,771,329,813,30,197,520,555,640,371,262,330,335,225,405,963,465,480,836,896,210,750,344,12,633,686,157,257,221,894,368,216,272,194,15,236,434,289,557,589,704,149,239,790,253,290,390,153,203,880,233,414,579,628,240,831,129,131,479,227,768,734,455,353,528,211,403,207,920,670,846,782,288,215,91,13,223,364,692,756,638,165,237,566,264,751,219,431,204,19,93,975,687,553,199,766,854,688,198,234,578,456,249,637,590,558,468,706,853,96,256,166,224,689,753,752,150,642,565,903,702,833,220,287,568,685,260,856,691,755,749,690,754,477,391,115,62,389,422,14,901,707,644,158,193,643,639,800,708,540,154,152,705,641,567,296,11,490,458,435,554,508,608,53,248,537,252,830,539,57,759,538,695,769,765,218,832,591,559,855,848,784,607,507,478,453,269,977,61,605,606,876,505,454,506,202,228,250,87,893,902,781,845,500,600,701,767,404,703,823,887,206,864,106,372,293,586,341,284,363,56,497,459,491,339,967,614,294,597,467,213,615,599,911,499,514,824,888,974,577,286,232,195,235,18,258,598,829,380,498,980,451,872,808,551,877,515,875,64,513,164,895,810,68,192,592,560,226,575,623,209,523,475,22,332,835,772,481,251,231,460,492,254,163,869,805,816,613,281,976,834,482,54,20,208,878,410,103,238,66,908,427,562,486,51,973,696,587,104,760,709,283,821,885,897,645,485,247,355,65,899,646,788,282,179,67,937,328,886,822,82,461,196,151,879,487,968,340,828,201,342,838,452,127,710,229,92,270,979,183,552,863,189,190,647,711,337,965,162,122,21,462,913,757,693,585,677,275,741,25,758,418,806,870,365,811,694,871,807,376,191,49,55,417,338,966,524,476,180,378,178,433,114,742,898,187,107,678,648,576,624,230,271,343,712,84,394,954,945,377,188,347,118,393,953,801,865,367,804,868,837,177,373,52,16,776,947,184,912,904,809,366,370,374,588,627,527,172,861,631,561,161,936,419,531,81,369,488,245,182,957,95,420,186,42,564,44,185,83,550,205,915,958,450,171,840,244,867,803,574,622,464,128,102,959,125,36,316,27,327,474,522,960,60,584,890,181,312,914,812,170,300,148,850,969,105,778,842,825,596,26,593,493,308,873,315,246,23,311,933,874,563,307,325,858,935,10,946,496,802,866,382,108,9,381,748,934,684,383,657,787,900,326,721,299,133,449,549,463,629,387,595,494,786,7,386,632,594,169,88,573,621,241,473,521,388,839,495,121,303,123,304,147,972,101,680,827,385,744,889,773,630,798,698,37,529,2,743,679,85,762,775,243,916,530,126,612,306,302,314,544,310,532,28,298,610,395,955,242,301,346,274,849,952,396,956,841,777,510,512,907,97,649,29,713,144,441,119,852,780,844,924,857,140,745,681,77,541,892,860,305,313,761,747,697,78,683,609,763,774,384,699,8,89,602,746,682,442,109,826,921,502,5,971,145,146,1,80,676,700,740,309,509,59,764,120,297,859,345,397,601,273,400,785,796,98,398,923,951,135,797,79,667,731,141,799,38,793,922,611,779,843,927,795,724,716,660,652,444,737,511,137,673,675,851,604,142,925,739,501,582,484,543,94,504,138,143,928,139,970,715,651,738,674,943,33,906,891,949,658,722,950,732,668,941,40,603,723,503,581,659,268,583,650,714,31,117,32,3,267,266,905,483,4,944,134,24,794,86,542,99,43,926,34,136,70,58,90,443,265,45,73,729,665,46,35,72,39,399,100,112,71,50,730,41,666,47,113,74,318,942,320,323,324,322,48,110,111,75,76,317,319,321,174,176,175,173 |
| **UFSIL** | 699,971,972,284,247,763,865,923,13,909,857,633,933,286,12,15,419,544,23,54,6,22,155,796,211,839,210,562,837,55,282,653,159,374,625,659,525,41,246,636,416,462,67,444,913,978,21,352,484,11,565,828,181,547,510,963,268,977,74,42,634,364,193,197,969,281,943,160,249,400,248,859,65,330,412,799,535,177,77,260,629,356,235,861,918,26,927,201,57,425,504,818,965,250,276,904,280,171,275,86,417,188,325,885,815,813,399,791,939,883,37,888,368,90,121,196,56,860,343,150,876,288,208,309,890,7,812,584,314,897,397,14,73,296,120,811,680,84,760,889,35,536,134,610,783,71,133,772,441,245,867,232,16,959,24,348,847,418,542,264,671,266,534,103,365,87,302,442,426,912,304,146,204,551,135,788,186,674,147,45,431,723,263,205,561,528,401,825,543,127,166,527,9,541,613,395,775,52,958,113,224,283,369,179,130,132,192,270,563,89,217,586,289,898,149,183,106,792,714,447,844,787,665,122,385,919,105,719,647,372,329,797,892,781,845,386,928,790,350,627,926,407,448,151,353,503,663,33,92,789,198,157,809,810,864,295,40,529,960,63,66,415,903,31,17,117,852,901,383,695,583,748,44,109,53,207,801,729,673,8,375,626,957,966,481,102,785,849,945,915,649,376,81,262,200,29,202,203,823,887,3,114,940,856,980,964,800,230,488,408,946,609,432,316,420,373,51,123,307,762,891,191,853,827,222,575,153,294,378,907,119,438,221,359,771,487,486,136,595,526,100,572,30,428,141,99,619,905,464,156,794,39,410,214,411,482,934,345,164,843,485,564,94,650,231,287,38,740,60,253,366,949,20,303,611,258,326,531,404,874,733,255,403,826,422,363,916,285,698,112,727,679,840,25,362,463,433,97,95,906,347,170,380,124,866,802,848,784,962,873,334,816,80,495,948,628,387,96,355,28,793,654,880,743,902,732,82,226,70,104,445,107,936,327,635,116,434,814,668,115,251,261,467,872,566,381,108,358,370,632,471,254,744,684,863,779,299,195,582,396,190,956,882,523,351,806,267,328,739,602,937,199,758,189,961,530,68,382,88,336,424,342,47,64,238,446,1,773,379,138,511,585,341,182,955,979,720,730,900,795,290,533,929,308,19,922,601,587,738,746,576,777,870,745,546,803,335,494,241,315,405,532,218,862,339,819,868,804,178,821,229,449,409,911,459,491,118,371,782,935,778,842,436,496,524,769,34,656,5,278,731,618,36,384,501,101,851,143,780,98,277,520,716,338,244,145,91,354,666,18,593,360,139,337,518,759,914,713,233,950,312,736,472,721,452,273,457,461,660,509,502,715,696,667,664,672,272,881,817,570,476,137,158,631,545,594,682,603,313,622,50,475,126,574,305,761,620,32,722,651,473,521,630,567,569,517,850,728,398,947,854,655,185,681,340,548,512,588,970,875,676,724,257,58,808,884,820,163,930,435,388,717,734,49,423,367,4,349,440,657,271,917,942,346,552,899,279,377,725,877,437,300,833,670,140,154,465,774,925,675,172,311,142,951,824,737,846,623,920,10,661,291,128,573,194,131,129,474,69,293,571,693,306,234,522,332,402,187,658,331,152,361,757,469,931,549,841,944,718,786,427,333,79,443,604,451,259,938,72,301,513,967,78,652,550,357,144,483,838,489,298,439,125,747,519,470,869,242,908,669,858,256,421,83,406,269,581,662,776,726,344,167,617,952,450,93,621,297,557,589,292,85,274,493,559,591,310,697,932,2,558,924,694,968,624,822,886,805,973,764,798,921,27,243,414,430,879,735,683,590,711,492,700,212,855,223,612,560,148,592,460,169,265,206,596,394,835,165,209,954,466,490,458,678,429,515,878,742,413,219,454,910,184,553,871,213,807,941,829,59,393,615,770,953,216,162,976,831,836,168,215,477,225,639,677,579,391,252,161,514,741,685,749,236,389,237,220,180,765,478,832,228,751,240,975,687,614,701,479,554,767,893,61,709,645,453,637,555,640,499,577,390,599,894,646,688,702,766,830,468,750,455,768,227,686,895,752,710,578,704,516,974,500,600,703,753,689,705,616,756,692,641,498,497,598,539,392,456,644,712,580,597,480,708,755,691,507,706,607,638,690,754,508,642,608,506,707,505,606,537,605,540,643,896,834,538,43,46,648,556,568,62,239,323,76,321,174,322,318,48,75,110,173,111,176,319,175,320,324,317,981 |
| **LASSO** | 540,235,211,206,179,413,609,194,214,197,52,468,449,66,420,3,112,221,60,640,541,890,6,850,212,863,477,912,935,213,203,542,957,95,959,46,33,82,73,2,373,99,39,122,74,68,56,678,388,659,41,788,118,51,979,258,35,91,125,31,401,978,94,93,347,278,29,852,37,130,40,92,13,87,483,419,12,120,404,34,822,625,123,941,49,18,134,21,81,109,79,101,409,32,407,723,98,4,128,341,8,10,14,15,16,19,22,24,25,27,28,42,47,50,53,55,58,62,65,70,71,72,76,77,84,85,90,97,102,104,106,108,110,111,115,117,121,126,127,129,131,132,133,136,137,138,139,140,141,142,143,145,146,147,149,150,151,152,153,154,155,156,157,158,159,160,161,162,164,165,166,167,168,169,170,172,173,174,175,176,177,178,180,181,182,183,184,185,186,187,188,189,190,191,192,193,195,198,199,201,202,204,205,207,208,209,215,216,217,218,220,222,223,224,226,228,230,231,232,233,236,237,238,239,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,259,260,261,262,263,264,265,266,268,269,271,272,273,275,276,277,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,294,295,296,297,298,299,300,302,303,304,305,306,307,308,309,310,311,312,313,314,315,316,317,318,319,320,321,322,323,324,325,326,327,328,329,330,331,332,333,334,335,336,337,338,339,340,343,344,345,346,348,349,350,351,352,353,354,355,356,357,358,359,360,361,363,365,366,367,368,369,370,371,372,374,375,376,377,378,379,380,381,382,383,384,385,386,387,389,390,391,392,393,394,395,396,399,403,406,414,415,416,417,418,421,422,423,424,425,426,427,428,429,432,433,434,435,436,437,438,439,440,441,442,443,444,445,446,447,448,450,451,452,453,454,455,456,457,458,459,460,461,462,463,464,465,466,467,469,470,471,472,473,474,475,476,478,479,480,481,482,484,485,486,487,488,489,490,491,492,493,494,495,496,497,498,499,500,501,502,503,504,505,506,507,508,509,510,511,512,513,514,515,516,517,518,519,520,521,522,523,524,525,526,527,528,529,530,531,533,534,535,536,538,539,543,544,545,546,547,548,549,550,551,552,553,554,555,556,557,558,559,560,561,562,563,564,565,566,567,568,569,570,571,572,573,574,575,576,577,578,579,580,581,582,583,584,585,586,587,588,589,590,591,592,593,594,595,596,597,598,599,600,601,602,603,604,605,606,607,608,610,611,612,613,614,615,616,617,618,619,620,621,622,623,624,626,627,628,629,630,631,632,633,634,635,636,638,639,641,642,643,644,645,646,647,648,649,650,651,652,653,654,655,656,658,660,661,662,663,664,665,666,667,668,669,670,671,672,673,674,675,676,677,679,680,681,682,683,685,686,687,688,689,690,691,692,693,694,695,696,698,699,701,703,704,705,706,707,708,709,710,711,712,713,714,715,716,717,718,719,720,722,724,725,726,727,728,729,730,731,732,733,734,735,736,737,738,739,740,741,742,743,744,745,746,747,748,749,750,751,752,753,754,755,756,757,758,759,760,761,762,763,764,765,767,768,769,772,773,774,775,776,777,778,779,780,781,782,783,785,786,787,789,790,791,793,794,795,796,797,798,799,801,802,803,804,805,806,807,808,809,810,811,812,813,814,815,816,817,818,819,820,821,824,825,827,828,829,830,831,833,834,835,836,837,838,839,840,841,842,843,844,845,846,847,848,849,851,854,855,856,857,858,859,860,861,862,865,866,867,868,869,870,871,872,873,874,875,876,877,878,879,880,881,882,883,884,885,886,888,891,892,893,894,896,897,898,899,900,901,902,903,904,905,907,908,909,911,913,914,915,916,917,918,919,920,921,922,923,924,925,926,927,928,929,930,931,932,933,934,936,937,938,939,940,942,943,946,947,948,949,950,951,952,953,954,955,956,958,960,961,962,963,964,965,966,967,968,969,970,971,972,973,974,975,976,977,980,887,721,171,864,57,398,11,408,229,80,100,405,342,20,981,5,83,889,89,944,78,700,823,45,301,364,103,234,144,402,116,105,945,411,119,44,697,270,800,114,67,274,410,148,64,1,26,96,30,63,412,86,9,113,684,906,362,784,88,107,657,771,43,75,770,397,135,7,895,400,267,124,54,36,59,532,17,853,430,23,792,910,69,431,210,38,200,196,826,637,702,225,163,832,227,61,766,48,219,537 |

**Dictionary**

|  |  |
| --- | --- |
| Features | Abbreviation |
| Movement Disorder Society -Unified Parkinson's Disease Rating Scale | MDS-UPDRS |
| Scales for Outcome in Parkinson's Disease of autonomic function | SCOPA-AUT |
| SCOPA-AUT\_ common features between men and women | SCOPA-AUT-Com |
| Modified Schwab & England Activities of Daily Living | MSEADL |
| Tremor dominant | TD\_S |
| postural instability gait disorder dominant | PIGD\_S |
| Geriatric Depression Scale | GDS |
| Questionnaire for Impulsive‐Compulsive Disorders | QUIP |
| State‐Trait Anxiety Inventory for Adults | STAIA |
| Benton Judgment of Line Orientation Score | BJLOS |
| Hopkins Verbal Learning Test – Revised | HVLT‐R |
| Letter Number Sequencing | LNS |
| Montreal Cognitive Assesment | MoCA |
| Semantic Fluency Test | SFT |
| Derived-Sem. Fluency-Animal T-Score | DVT\_SFTANIM |
| Derived-Symbol Digit SD | DVSD\_SDM |
| Symbol Digit Modalities Total Correct | SDMTOTAL |
| University of Pennsylvania Smell Identification Test | UPSITBK |
| Epworth Sleepiness Scale | EPWORTH |
| REM Sleep Behavior Disorder Screening Questionnaire | RBDSQ (REMSLEEP) |
| Biological Mother with PD | BIOMOMPD |
| Biological Father with PD | BIODADPD |
| Full Siblings | FULSIB |
| Full Siblings with PD | FULSIBPD |
| Half Siblings | HAFSIB |
| Maternal Grandparents with PD | MAGPARPD |
| Paternal Grandparents with PD | PAGPARPD |
| Maternal Aunts and Uncles | MATAU |
| Maternal Aunts and Uncles with PD | MATAUPD |
| Paternal Aunts and Uncles | PATAU |
| Paternal Aunts and Uncles with PD | PATAUPD |
| How many children do you have | KIDSNUM |
| How many children with PD | KIDSPD |
| EthNCFty: Is subject Hispanic/Latino | HISPLAT |
| Identify self as Am Indian/Alaska Native | RAINDALS |
| Identify self as Asian | RAASIAN |
| Identify self as Black/African American | RABLACK |
| Identify self as White | RAWHITE |
| Race not specified | RANOS |
| Number of years of education | EDUCYRS |
| Handedness | HANDED |
| IUSM\_CON\_ | IUSM\_CON\_ |
| IUSM\_RATIO\_ | IUSM\_RATIO\_260\_280\_ |
| IUSM\_RIN\_ | IUSM\_RIN\_ |
| IUSM\_AVERHEM \_ | IUSM\_AVERAGE\_HEMOGLOBIN \_ |
| DVT\_TOTAL\_RECALL | D-TRe\_TS |
| DVT\_RECOG\_DISC\_INDEX | D-Rec. Dis. In \_TS |
| DVS\_JLO\_MSSAE | D\_JLO\_MS |
| Derived-MOANS (Age and Education) | D-MOANS\_AE |
| DVS\_LNS, DVT\_SFTANIM | D\_LNS, DVT\_SFTA |
| DVT\_SDM | D\_SDM |
| Gene Category | gen\_cat |
| NEUROLIGICAL\_EXAM\_CRABIAL | NEUREC |
| Weight (in Kilograms) | WGTKG |
| Height (in Centimeters) | HTCM |
| Temperature (in Celsius) | TEMPC |
| Arm used for blood pressure | BPARM |
| Supine BP - systolic | SYSSUP |
| Supine BP - diastolic | DIASUP |
| Supine heart rate | HRSUP |
| Standing BP - systolic | SYSSTND |
| Standing BP - diastolic | DIASTND |
| Standing heart rate | HRSTND |
| chr1:154925709:G:C\_C\_PMVK\_rs114138760 | Gen1 |
| chr1:155235252:A:G\_G\_GBA\_L444P\_rs421016 | Gen2 |
| chr1:155235843:T:C\_C\_GBA\_N370S\_rs76763715 | Gen3 |
| chr1:155236246:G:A\_A\_GBA\_T408M\_rs75548401 | Gen4 |
| chr1:155236376:C:T\_T\_GBA\_E365K\_rs2230288 | Gen5 |
| chr1:155240629:C:T\_T\_GBA\_IVS2+1\_rs104886460 | Gen6 |
| chr1:155240660:G:GC\_GC\_GBA\_84GG\_rs387906315 | Gen7 |
| chr1:205754444:C:T\_C\_NUCKS1\_rs823118 | Gen8 |
| chr1:226728377:T:C\_C\_ITPKB\_rs4653767 | Gen9 |
| chr1:232528865:C:T\_T\_SIPA1L2\_rs10797576 | Gen10 |
| chr2:101796654:T:C\_C\_IL1R2/MAP4K4\_rs34043159 | Gen11 |
| chr2:134782397:C:T\_C\_ACMSD/TMEM163\_rs6430538 | Gen12 |
| chr2:165277122:C:T\_T\_SCN3A/SCN2A\_rs353116 | Gen13 |
| chr2:168272635:G:T\_T\_STK39\_rs1955337 | Gen14 |
| chr3:18235996:T:G\_G\_SATB1\_rs4073221 | Gen15 |
| chr3:48711556:G:T\_G\_NCKIPSD/CDC71/IP6K2\_rs12497850 | Gen16 |
| chr3:52782824:G:A\_A\_ITIH1\_rs143918452 | Gen17 |
| chr3:165773492:C:T\_T\_BuChE\_rs1803274 | Gen18 |
| chr3:183044649:G:A\_A\_MCCC1\_rs12637471 | Gen19 |
| chr4:950422:A:C\_C\_TMEM175\_rs34884217 | Gen20 |
| chr4:958159:T:C\_C\_TMEM175\_rs34311866 | Gen21 |
| chr4:15735478:C:A\_C\_BST1\_rs11724635 | Gen22 |
| chr4:76277833:C:T\_T\_FAM47E/STBD1\_rs6812193 | Gen23 |
| chr4:89704988:G:A\_G\_SNCA\_rs356181 | Gen24 |
| chr4:89761420:A:G\_G\_SNCA\_rs3910105 | Gen25 |
| chr4:109912954:A:G\_G\_EGF\_rs4444903 | Gen26 |
| chr4:113439216:T:C\_C\_ANK2/CAMK2D\_rs78738012 | Gen27 |
| chr5:60978096:C:A\_C\_ELOVL7/NDUFAF2\_rs2694528 | Gen28 |
| chr6:27713436:G:A\_A\_ZNF184\_rs9468199 | Gen29 |
| chr6:32218019:C:T\_T\_NOTCH4\_G1739S\_rs8192591 | Gen30 |
| chr6:32698883:C:T\_T\_HLA\_DBQ1\_rs115462410 | Gen31 |
| chr7:23254127:A:G\_G\_GPNMP\_rs199347 | Gen32 |
| chr8:11854934:A:C\_C\_CTSB\_rs1293298 | Gen33 |
| chr8:16839582:G:A\_A\_MICU3/FGF20\_rs591323 | Gen34 |
| chr8:22668467:T:C\_T\_BIN3\_rs2280104 | Gen35 |
| chr9:17579692:T:G\_T\_SH3GL2\_rs13294100 | Gen36 |
| chr10:15527599:C:A\_C\_FAM171A1/ITGA8\_rs10906923 | Gen37 |
| chr10:119950976:C:T\_T\_MIR4682\_rs118117788 | Gen38 |
| chr11:133895472:T:C\_T\_MIR4697\_rs329648 | Gen39 |
| chr12:40220632:C:T\_T\_LRRK2\_rs76904798 | Gen40 |
| chr12:40310434:C:G\_G\_LRRK2\_R1441G\_rs33939927 | Gen41 |
| chr12:40310434:C:T\_T\_LRRK2\_R1441C\_rs33939927 | Gen42 |
| chr12:40320043:G:C\_C\_LRRK2\_R1628P/H\_rs33949390 | Gen43 |
| chr12:40340400:G:A\_A\_LRRK2\_G2019S\_rs34637584 | Gen44 |
| chr12:40363526:G:A\_A\_LRRK2\_G2385R\_rs34778348 | Gen45 |
| chr12:122819039:A:G\_G\_OGFOD2/CCDC62\_rs11060180 | Gen46 |
| chr14:54882151:C:T\_T\_GCH1\_rs11158026 | Gen47 |
| chr14:88006268:C:T\_T\_GALC/GPR65\_rs8005172 | Gen48 |
| chr15:61701935:G:A\_G\_VPS13C\_rs2414739 | Gen49 |
| chr16:19268142:T:G\_T\_COQ7/SYT17\_rs11343 | Gen50 |
| chr16:31110472:G:A\_A\_ZNF646/KAT8/BCKDK\_rs14235 | Gen51 |
| chr16:52565276:C:T\_T\_TOX3/CASC16\_rs4784227 | Gen52 |
| chr17:17811787:G:A\_A\_SREBF1\_rs11868035 | Gen53 |
| chr17:45917282:C:T\_T\_MAPT\_rs17649553 | Gen54 |
| chr18:43093415:A:G\_G\_SYT4/RIT2\_rs12456492 | Gen55 |
| chr20:3172857:G:A\_A\_DDRGK1\_rs55785911 | Gen56 |
| chr22:19942586:T:C\_C\_COMT\_rs737866 | Gen57 |
| chr22:19946502:A:G\_A\_COMT\_rs174674 | Gen58 |
| chr22:19950115:T:G\_T\_COMT\_rs5993883 | Gen59 |
| chr22:19957654:A:G\_A\_COMT\_rs740603 | Gen60 |
| chr22:19961340:G:C\_G\_COMT\_rs165656 | Gen61 |
| chr22:19962429:A:G\_G\_COMT\_rs6269 | Gen62 |
| chr22:19962712:C:T\_C\_COMT\_rs4633 | Gen63 |
| chr22:19962905:A:G\_G\_COMT\_rs2239393 | Gen64 |
| chr22:19963684:C:G\_G\_COMT\_rs4818 | Gen65 |
| chr22:19963748:G:A\_A\_COMT\_rs4680 | Gen66 |
| chr22:19969258:G:A\_G\_COMT\_rs165599 | Gen67 |
| Conventional\_Brain region caudate\_right | Con\_CauR |
| Conventional\_Brain region caudate\_left | Con\_CauL |
| Conventional\_Brain region putamen\_right | Con\_PutR |
| Conventional\_Brain region putamen\_left | Con\_PutL |
| Conventional\_Average of left and righr Caudate | Con\_Mcaud |
| Conventional\_Average of left and righr Putamen | Con\_Mput |
| Conventional\_Average of left and righr straitum | Con\_Mstr |
| Con\_CauL/Con\_PutL | Con\_L\_cdr |
| Con\_CauR/Con\_PutR | Con\_R\_cdr |
| Conventional\_Brain region straitum\_right | Con\_R\_str |
| Conventional\_Brain region straitum\_left | Con\_L\_str |
| Conventional\_Absolute ((Con\_R\_str - Con\_L\_str)/(Con\_R\_str +Con\_L\_str)) | Con\_Str\_UpR |
| Conventional\_Low\_caudate uotake | Con\_Low\_cau |
| Conventional\_High\_caudate uptake | Con\_High\_cau |
| Conventional\_Low\_putamen uptake | Con\_Low\_put |
| Conventional\_High\_putamen uptake | Con\_High\_put |
| Conventional\_Low\_striatum uptake | Con\_Low\_str |
| Conventional\_High\_striatum uptake | Con\_High\_str |
| Volume (mesh-based) | morph\_volume |
| Volume (counting) | morph\_vol\_approx |
| Surface area | morph\_area\_mesh |
| Surface to volume ratio | morph\_av |
| Compactness 1 | morph\_comp\_1 |
| Compactness 2 | morph\_comp\_2 |
| Spherical disproportion | morph\_sph\_dispr |
| Sphericity | morph\_sphericity |
| Asphericity | morph\_asphericity |
| Centre of mass shift | morph\_com |
| Maximum 3D diameter | morph\_diam |
| Major axis length | morph\_pca\_maj\_axis |
| Minor axis length | morph\_pca\_min\_axis |
| Least axis length | morph\_pca\_least\_axis |
| Elongation | morph\_pca\_elongation |
| Flatness | morph\_pca\_flatness |
| Volume density (AABB) | morph\_vol\_dens\_aabb |
| Area density (AABB) | morph\_area\_dens\_aabb |
| Volume density (OMBB) | morph\_vol\_dens\_ombb |
| Area density (OMBB) | morph\_area\_dens\_ombb |
| Volume density (AEE) | morph\_vol\_dens\_aee |
| Area density (AEE) | morph\_area\_dens\_aee |
| Volume density (MVEE) | morph\_vol\_dens\_mvee |
| Area density (MVEE) | morph\_area\_dens\_mvee |
| Volume density (convex hull) | morph\_vol\_dens\_conv\_hull |
| Area density (convex hull) | morph\_area\_dens\_conv\_hull |
| Integrated intensity | morph\_integ\_int |
| Moran's I index | morph\_moran\_i |
| Geary's C measure | morph\_geary\_c |
| Local intensity peak | loc\_peak\_loc |
| Global intensity peak | loc\_peak\_glob |
| Mean | stat\_mean |
| Variance | stat\_var |
| Skewness | stat\_skew |
| (Excess) kurtosis | stat\_kurt |
| Median | stat\_median |
| Minimum | stat\_min |
| 10th percentile | stat\_p10 |
| 90th percentile | stat\_p90 |
| Maximum | stat\_max |
| Interquartile range | stat\_iqr |
| Range | stat\_range |
| Mean absolute deviation | stat\_mad |
| Robust mean absolute deviation | stat\_rmad |
| Median absolute deviation | stat\_medad |
| Coefficient of variation | stat\_cov |
| Quartile coefficient of dispersion | stat\_qcod |
| Energy | stat\_energy |
| Root mean square | stat\_rms |
| Mean | ih\_mean |
| Variance | ih\_var |
| Skewness | ih\_skew |
| Kurtosis | ih\_kurt |
| Median | ih\_median |
| Minimum | ih\_min |
| 10th percentile | ih\_p10 |
| 90th percentile | ih\_p90 |
| Maximum | ih\_max |
| Mode | ih\_mode |
| Interquartile range | ih\_iqr |
| Range | ih\_range |
| Mean absolute deviation | ih\_mad |
| Robust mean absolute deviation | ih\_rmad |
| Median absolute deviation | ih\_medad |
| Coefficient of variation | ih\_cov |
| Quartile coefficient of dispersion | ih\_qcod |
| Entropy | ih\_entropy |
| Uniformity | ih\_uniformity |
| Maximum histogram gradient | ih\_max\_grad |
| Maximum gradient grey level | ih\_max\_grad\_g |
| Minimum histogram gradient | ih\_min\_grad |
| Minimum gradient grey level | ih\_min\_grad\_g |
| Volume fraction at 10% intensity | ivh\_v10 |
| Volume fraction at 90% intensity | ivh\_v90 |
| Intensity at 10% volume | ivh\_i10 |
| Intensity at 90% volume | ivh\_i90 |
| Volume fraction difference between 10% and 90% intensity | ivh\_diff\_v10\_v90 |
| Intensity difference between 10% and 90% volume | ivh\_diff\_i10\_i90 |
| Area under the IVH curve | ivh\_auc |
| Joint maximum | cm\_joint\_max\_3D\_avg |
| Joint average | cm\_joint\_avg\_3D\_avg |
| Joint variance | cm\_joint\_var\_3D\_avg |
| Joint entropy | cm\_joint\_entr\_3D\_avg |
| Difference average | cm\_diff\_avg\_3D\_avg |
| Difference variance | cm\_diff\_var\_3D\_avg |
| Difference entropy | cm\_diff\_entr\_3D\_avg |
| Sum average | cm\_sum\_avg\_3D\_avg |
| Sum variance | cm\_sum\_var\_3D\_avg |
| Sum entropy | cm\_sum\_entr\_3D\_avg |
| Angular second moment | cm\_energy\_3D\_avg |
| Contrast | cm\_contrast\_3D\_avg |
| Dissimilarity | cm\_dissimilarity\_3D\_avg |
| Inverse difference | cm\_inv\_diff\_3D\_avg |
| Inverse difference normalised | cm\_inv\_diff\_norm\_3D\_avg |
| Inverse difference moment | cm\_inv\_diff\_mom\_3D\_avg |
| Inverse difference moment normalised | cm\_inv\_diff\_mom\_norm\_3D\_avg |
| Inverse variance | cm\_inv\_var\_3D\_avg |
| Correlation | cm\_corr\_3D\_avg |
| Autocorrelation | cm\_auto\_corr\_3D\_avg |
| Cluster tendency | cm\_clust\_tend\_3D\_avg |
| Cluster shade | cm\_clust\_shade\_3D\_avg |
| Cluster prominence | cm\_clust\_prom\_3D\_avg |
| Information correlation 1 | cm\_info\_corr1\_3D\_avg |
| Information correlation 2 | cm\_info\_corr2\_3D\_avg |
| Joint maximum | cm\_joint\_max\_3D\_comb |
| Joint average | cm\_joint\_avg\_3D\_comb |
| Joint variance | cm\_joint\_var\_3D\_comb |
| Joint entropy | cm\_joint\_entr\_3D\_comb |
| Difference average | cm\_diff\_avg\_3D\_comb |
| Difference variance | cm\_diff\_var\_3D\_comb |
| Difference entropy | cm\_diff\_entr\_3D\_comb |
| Sum average | cm\_sum\_avg\_3D\_comb |
| Sum variance | cm\_sum\_var\_3D\_comb |
| Sum entropy | cm\_sum\_entr\_3D\_comb |
| Angular second moment | cm\_energy\_3D\_comb |
| Contrast | cm\_contrast\_3D\_comb |
| Dissimilarity | cm\_dissimilarity\_3D\_comb |
| Inverse difference | cm\_inv\_diff\_3D\_comb |
| Inverse difference normalised | cm\_inv\_diff\_norm\_3D\_comb |
| Inverse difference moment | cm\_inv\_diff\_mom\_3D\_comb |
| Inverse difference moment normalised | cm\_inv\_diff\_mom\_norm\_3D\_comb |
| Inverse variance | cm\_inv\_var\_3D\_comb |
| Correlation | cm\_corr\_3D\_comb |
| Autocorrelation | cm\_auto\_corr\_3D\_comb |
| Cluster tendency | cm\_clust\_tend\_3D\_comb |
| Cluster shade | cm\_clust\_shade\_3D\_comb |
| Cluster prominence | cm\_clust\_prom\_3D\_comb |
| Information correlation 1 | cm\_info\_corr1\_3D\_comb |
| Information correlation 2 | cm\_info\_corr2\_3D\_comb |
| Short runs emphasis | rlm\_sre\_3D\_avg |
| Long runs emphasis | rlm\_lre\_3D\_avg |
| Low grey level run emphasis | rlm\_lgre\_3D\_avg |
| High grey level run emphasis | rlm\_hgre\_3D\_avg |
| Short run low grey level emphasis | rlm\_srlge\_3D\_avg |
| Short run high grey level emphasis | rlm\_srhge\_3D\_avg |
| Long run low grey level emphasis | rlm\_lrlge\_3D\_avg |
| Long run high grey level emphasis | rlm\_lrhge\_3D\_avg |
| Grey level non-uniformity | rlm\_glnu\_3D\_avg |
| Grey level non-uniformity normalised | rlm\_glnu\_norm\_3D\_avg |
| Run length non-uniformity | rlm\_rlnu\_3D\_avg |
| Run length non-uniformity normalised | rlm\_rlnu\_norm\_3D\_avg |
| Run percentage | rlm\_r\_perc\_3D\_avg |
| Grey level variance | rlm\_gl\_var\_3D\_avg |
| Run length variance | rlm\_rl\_var\_3D\_avg |
| Run entropy | rlm\_rl\_entr\_3D\_avg |
| Short runs emphasis | rlm\_sre\_3D\_comb |
| Long runs emphasis | rlm\_lre\_3D\_comb |
| Low grey level run emphasis | rlm\_lgre\_3D\_comb |
| High grey level run emphasis | rlm\_hgre\_3D\_comb |
| Short run low grey level emphasis | rlm\_srlge\_3D\_comb |
| Short run high grey level emphasis | rlm\_srhge\_3D\_comb |
| Long run low grey level emphasis | rlm\_lrlge\_3D\_comb |
| Long run high grey level emphasis | rlm\_lrhge\_3D\_comb |
| Grey level non-uniformity | rlm\_glnu\_3D\_comb |
| Grey level non-uniformity normalised | rlm\_glnu\_norm\_3D\_comb |
| Run length non-uniformity | rlm\_rlnu\_3D\_comb |
| Run length non-uniformity normalised | rlm\_rlnu\_norm\_3D\_comb |
| Run percentage | rlm\_r\_perc\_3D\_comb |
| Grey level variance | rlm\_gl\_var\_3D\_comb |
| Run length variance | rlm\_rl\_var\_3D\_comb |
| Run entropy | rlm\_rl\_entr\_3D\_comb |
| Small zone emphasis | szm\_sze\_3D |
| Large zone emphasis | szm\_lze\_3D |
| Low grey level emphasis | szm\_lgze\_3D |
| High grey level emphasis | szm\_hgze\_3D |
| Small zone low grey level emphasis | szm\_szlge\_3D |
| Small zone high grey level emphasis | szm\_szhge\_3D |
| Large zone low grey level emphasis | szm\_lzlge\_3D |
| Large zone high grey level emphasis | szm\_lzhge\_3D |
| Grey level non-uniformity | szm\_glnu\_3D |
| Grey level non uniformity normalised | szm\_glnu\_norm\_3D |
| Zone size non-uniformity | szm\_zsnu\_3D |
| Zone size non-uniformity normalised | szm\_zsnu\_norm\_3D |
| Zone percentage | szm\_z\_perc\_3D |
| Grey level variance | szm\_gl\_var\_3D |
| Zone size variance | szm\_zs\_var\_3D |
| Zone size entropy | szm\_zs\_entr\_3D |
| Small distance emphasis | dzm\_sde\_3D |
| Large distance emphasis | dzm\_lde\_3D |
| Low grey level emphasis | dzm\_lgze\_3D |
| High grey level emphasis | dzm\_hgze\_3D |
| Small distance low grey level emphasis | dzm\_sdlge\_3D |
| Small distance high grey level emphasis | dzm\_sdhge\_3D |
| Large distance low grey level emphasis | dzm\_ldlge\_3D |
| Large distance high grey level emphasis | dzm\_ldhge\_3D |
| Grey level non-uniformity | dzm\_glnu\_3D |
| Grey level non-uniformity normalised | dzm\_glnu\_norm\_3D |
| Zone distance non-uniformity | dzm\_zdnu\_3D |
| Zone distance non-uniformity normalised | dzm\_zdnu\_norm\_3D |
| Zone percentage | dzm\_z\_perc\_3D |
| Grey level variance | dzm\_gl\_var\_3D |
| Zone distance variance | dzm\_zd\_var\_3D |
| Zone distance entropy | dzm\_zd\_entr\_3D |
| Coarseness | ngt\_coarseness\_3D |
| Contrast | ngt\_contrast\_3D |
| Busyness | ngt\_busyness\_3D |
| Complexity | ngt\_complexity\_3D |
| Strength | ngt\_strength\_3D |
| Low dependence emphasis | ngl\_lde\_3D |
| High dependence emphasis | ngl\_hde\_3D |
| Low grey level count emphasis | ngl\_lgce\_3D |
| High grey level count emphasis | ngl\_hgce\_3D |
| Low dependence low grey level emphasis | ngl\_ldlge\_3D |
| Low dependence high grey level emphasis | ngl\_ldhge\_3D |
| High dependence low grey level emphasis | ngl\_hdlge\_3D |
| High dependence high grey level emphasis | ngl\_hdhge\_3D |
| Grey level non-uniformity | ngl\_glnu\_3D |
| Grey level non-uniformity normalised | ngl\_glnu\_norm\_3D |
| Dependence count non-uniformity | ngl\_dcnu\_3D |
| Dependence count non-uniformity normalised | ngl\_dcnu\_norm\_3D |
| Dependence count percentage | ngl\_dc\_perc\_3D |
| Grey level variance | ngl\_gl\_var\_3D |
| Dependence count variance | ngl\_dc\_var\_3D |
| Dependence count entropy | ngl\_dc\_entr\_3D |
| Dependence count energy | ngl\_dc\_energy\_3D |