

Maximal simplexes of non-threshold simplicial complexes
on 5 – vertices and vertexes of convex realizations of its 3 – dimensional Bier spheres.

Mathematica notebook (.nb) file is available at:
https://imi.pmf.kg.ac.rs/pub/m_timotijevic/Bier_Kv5_d3.nb

$K_1 = \{\{3\}, \{1, 2\}, \{4, 5\}\}$

$$V_1 = \begin{pmatrix} 11.368 & 8.24267 & 7.06005 & -7.06648 \times 10^{-9} \\ 8.24267 & 11.368 & 7.06006 & -7.06648 \times 10^{-9} \\ -0.651164 & -0.651164 & 2.09609 & -7.06648 \times 10^{-9} \\ -0.651164 & -0.651164 & -1.02891 & 50. \\ -50.6512 & -50.6512 & -51.0289 & -50. \\ -6.99586 & -0.651164 & -1.02891 & -7.06648 \times 10^{-9} \\ -0.651164 & -6.99586 & -1.02891 & -7.06648 \times 10^{-9} \\ 2.47492 & 2.47492 & -4.53066 & -7.06648 \times 10^{-9} \\ -31.9814 & -31.9814 & -29.5238 & -101.478 \\ 69.4964 & 69.4964 & 71.9539 & 101.478 \end{pmatrix}$$

$K_2 = \{\{1, 2\}, \{3, 4\}, \{3, 5\}\}$

$$V_2 = \begin{pmatrix} 4.00485 & -0.616365 & 0.0731478 & -1.67975 \times 10^{-10} \\ -0.616368 & 4.00484 & 0.073148 & -1.67975 \times 10^{-10} \\ 0.930691 & 0.930691 & 5.64234 & -1.67975 \times 10^{-10} \\ 0.930691 & 0.930691 & -0.0394815 & 5.10204 \\ -4.17135 & -4.17135 & -5.14152 & -5.10204 \\ -6.55913 & 0.930691 & -0.0394815 & -1.67975 \times 10^{-10} \\ 0.930691 & -6.55913 & -0.0394815 & -1.67975 \times 10^{-10} \\ -4.60286 & -4.60286 & -8.76889 & -1.67975 \times 10^{-10} \\ 0.451676 & 0.451676 & -0.00460807 & -8.24944 \\ 8.70112 & 8.70112 & 8.24483 & 8.24944 \end{pmatrix}$$

$K_3 = \{\{2\}, \{1, 4\}, \{3, 4\}, \{3, 5\}\}$

$$V_3 = \begin{pmatrix} 4.55649 & -0.0291169 & 0.0377313 & -0.0381231 \\ 1.08453 & 4.66881 & -0.0460934 & 1.1555 \\ 1.08453 & 0.0391847 & 5.63572 & 1.1555 \\ -1.75507 & -0.129261 & 0.160636 & 3.2968 \\ -4.01751 & -5.06286 & -5.14813 & -3.94654 \\ -6.40529 & 0.0391847 & -0.0460934 & 1.1555 \\ 0.64835 & -7.47267 & -0.0143387 & 0.703326 \\ -2.60385 & -0.179611 & -8.92977 & -2.66812 \\ 1.08453 & 0.0391847 & -0.0460934 & -7.09859 \\ 6.3233 & 8.08715 & 8.39643 & 6.28477 \end{pmatrix}$$

$K_4 = \{\{1, 2\}, \{1, 4\}, \{1, 5\}, \{2, 3\}\}$

$$V_4 = \begin{pmatrix} 3.07631 & 1.64692 & -4.09543 & 5.63625 \times 10^{-10} \\ 2.47168 & 5.93444 & 2.24709 & 5.63625 \times 10^{-10} \\ -4.42989 & 1.64692 & 2.41938 & 5.63625 \times 10^{-10} \\ 2.47168 & -0.669333 & 2.24709 & 3.53535 \\ -1.06367 & -4.20469 & -1.28827 & -3.53535 \\ -7.85258 & -0.669333 & 2.24709 & 5.63625 \times 10^{-10} \\ -0.63775 & -8.53206 & -0.610467 & 5.63625 \times 10^{-10} \\ 2.47168 & -0.669333 & -6.71359 & 5.63625 \times 10^{-10} \\ -0.637738 & 0.374226 & -0.610456 & -4.76801 \\ 4.13028 & 5.14224 & 4.15756 & 4.76801 \end{pmatrix}$$

$K_5 = \{\{1, 3\}, \{2, 3\}, \{2, 4\}, \{2, 5\}, \{3, 4\}\}$

$$V_5 = \begin{pmatrix} 1.75879 & 7.58907 & -0.896132 & 0.0825813 \\ 1.46189 & 41.3038 & 2.01807 & -0.0941251 \\ -0.758483 & 6.98919 & 4.41574 & 0.0760722 \\ 1.46189 & -8.6962 & 2.01807 & 5.11421 \\ -3.25509 & -13.4132 & -2.69891 & -4.81111 \\ -2.5435 & -8.6962 & 2.01807 & -0.0941251 \\ -2.94717 & -54.3411 & -3.55558 & 0.24384 \\ 1.46189 & -8.6962 & -5.99272 & -0.0941251 \\ -1.52966 & 12.437 & -1.76366 & -7.8677 \\ 4.88945 & 25.5238 & 4.43706 & 7.44448 \end{pmatrix}$$

 $K_6 = \{\{1, 2\}, \{3, 4, 5\}\}$

$$V_6 = \begin{pmatrix} 1.74211 & -1.64321 & -5.15588 \times 10^{-12} & -5.60991 \times 10^{-12} \\ -1.64321 & 1.74211 & -5.15588 \times 10^{-12} & -5.60991 \times 10^{-12} \\ 2.38201 & 2.38201 & 7.29167 & -5.60991 \times 10^{-12} \\ 2.38201 & 2.38201 & -5.15588 \times 10^{-12} & 7.29167 \\ -4.90966 & -4.90966 & -7.29167 & -7.29167 \\ -2.28312 & 2.38201 & -5.15588 \times 10^{-12} & -5.60991 \times 10^{-12} \\ 2.38201 & -2.28312 & -5.15588 \times 10^{-12} & -5.60991 \times 10^{-12} \\ -3.33648 & -3.33648 & -9.95728 & -5.60991 \times 10^{-12} \\ -3.33648 & -3.33648 & -5.15588 \times 10^{-12} & -9.95728 \\ 6.6208 & 6.6208 & 9.95728 & 9.95728 \end{pmatrix}$$

 $K_7 = \{\{1, 2\}, \{1, 3\}, \{1, 5\}, \{2, 3\}, \{2, 4\}, \{3, 4\}\}$

$$V_7 = \begin{pmatrix} 3.28774 & 0.920535 & 0.920559 & -2.8751 \\ 1.72426 & 5.28497 & -0.484234 & 1.58838 \\ 1.72426 & -0.484259 & 5.285 & 1.58838 \\ -3.11429 & 0.920537 & 0.920561 & 2.78822 \\ -1.33697 & -3.54548 & -3.54546 & -1.47284 \\ -5.06368 & -0.484259 & -0.484234 & 1.58838 \\ -0.80388 & -5.69737 & 0.24977 & -0.743788 \\ -0.793184 & 0.24664 & -5.7007 & -0.733922 \\ 1.72426 & -0.484259 & -0.484234 & -4.41633 \\ 2.6515 & 3.32295 & 3.32297 & 2.68863 \end{pmatrix}$$

 $K_8 = \{\{1, 3\}, \{2, 4\}, \{1, 4, 5\}\}$

$$V_8 = \begin{pmatrix} 4.08419 & -3.13004 & -1.08635 & 0.334606 \\ -3.12741 & 1.18488 & -0.837661 & 0.258475 \\ 2.78001 & 1.84727 & 3.87005 & -0.162254 \\ 2.78001 & 1.84727 & 0.536719 & 6.9806 \\ -3.46999 & -4.40273 & -5.71328 & -6.41225 \\ -8.2665 & 1.84727 & 0.536719 & -0.162254 \\ 2.78001 & -2.88695 & 0.536719 & -0.162254 \\ -1.23817 & -1.01951 & -4.80061 & 0.123923 \\ -1.23822 & -1.01955 & -0.398135 & -9.30997 \\ 4.91605 & 5.73209 & 7.35583 & 8.51138 \end{pmatrix}$$

 $K_9 = \{\{1, 3\}, \{2, 3\}, \{2, 4, 5\}\}$

$$V_9 = \begin{pmatrix} 1.69903 & 0.216539 & -1.57557 & -6.58575 \times 10^{-11} \\ 2.2958 & 7.88645 & 2.34769 & -6.58575 \times 10^{-11} \\ -1.55951 & 0.216537 & 1.9111 & -6.58575 \times 10^{-11} \\ 2.2958 & -0.253089 & 2.34769 & 7. \\ -4.7042 & -7.25309 & -4.65231 & -7. \\ -2.24791 & -0.253089 & 2.34769 & -6.58575 \times 10^{-11} \\ -3.26499 & -10.82 & -3.31108 & -6.58575 \times 10^{-11} \\ 2.2958 & -0.253089 & -2.51408 & -6.58575 \times 10^{-11} \\ -3.24007 & 0.421251 & -3.28572 & -9.6703 \\ 6.43023 & 10.0915 & 6.38457 & 9.6703 \end{pmatrix}$$

$$K_{10} = \{\{1, 2\}, \{1, 3\}, \{1, 4\}, \{1, 5\}, \{2, 3\}, \{2, 4\}, \{3, 5\}\}$$

$$V_{10} = \begin{pmatrix} 7.18944 & -2.27309 & 0.287645 & -1.52565 \\ -2.59317 & 5.90872 & 0.287645 & -1.52565 \\ 2.12555 & 1.8253 & 4.29351 & 1.12874 \\ -2.59317 & -2.27309 & 0.287645 & 2.9298 \\ -0.779922 & -1.09813 & -3.18933 & -1.83652 \\ -9.4551 & 2.55228 & -0.209905 & 1.59958 \\ 3.62087 & -7.25279 & -0.268862 & 1.9699 \\ -2.59317 & -2.27309 & -5.40856 & -1.52565 \\ 3.75813 & 3.24327 & -0.281154 & -3.60264 \\ 1.32055 & 1.64062 & 4.20136 & 2.38807 \end{pmatrix}$$

$$K_{11} = \{\{1, 2\}, \{1, 3\}, \{2, 3\}, \{1, 4, 5\}\}$$

$$V_{11} = \begin{pmatrix} 7.71442 & 2.27578 & 2.27578 & 2.49888 \times 10^{-9} \\ 0.208488 & 1.82171 & -1.59538 & 2.49888 \times 10^{-9} \\ 0.208488 & -1.59538 & 1.82171 & 2.49888 \times 10^{-9} \\ -0.240127 & 2.27578 & 2.27578 & 6.86275 \\ -7.10287 & -4.58696 & -4.58696 & -6.86275 \\ -10.2232 & -3.10348 & -3.10348 & 2.49888 \times 10^{-9} \\ -0.240127 & -2.32616 & 2.27578 & 2.49888 \times 10^{-9} \\ -0.240127 & 2.27578 & -2.32616 & 2.49888 \times 10^{-9} \\ 0.382148 & -3.09391 & -3.09391 & -9.15076 \\ 9.53291 & 6.05684 & 6.05684 & 9.15076 \end{pmatrix}$$

$$K_{12} = \{\{1, 3\}, \{1, 4\}, \{1, 5\}, \{2, 3\}, \{2, 4\}, \{2, 5\}, \{3, 4\}\}$$

$$V_{12} = \begin{pmatrix} 3.01747 & -3.11081 & 0.842204 & 0.842204 \\ -3.11081 & 3.01747 & 0.842204 & 0.842204 \\ 1.70476 & 1.70476 & 5.11576 & -0.439794 \\ 1.70476 & 1.70476 & -0.439795 & 5.11576 \\ -1.42024 & -1.42024 & -3.56479 & -3.56479 \\ -4.80034 & 1.70476 & -0.439795 & -0.439794 \\ 1.70476 & -4.80034 & -0.439795 & -0.439794 \\ -0.835672 & -0.835672 & -5.48639 & 0.236518 \\ -0.83559 & -0.83559 & 0.236496 & -5.48641 \\ 2.8709 & 2.8709 & 3.3339 & 3.3339 \end{pmatrix}$$

$$K_{13} = \{\{1, 2\}, \{2, 3\}, \{2, 4\}, \{3, 4, 5\}\}$$

$$V_{13} = \begin{pmatrix} 1.76992 & -1.53636 & 0.191475 & 0.191475 \\ -1.51801 & 1.98405 & 0.191475 & 0.191475 \\ 2.19646 & 2.24883 & 7.38713 & -0.221569 \\ 2.19646 & 2.24883 & -0.221569 & 7.38713 \\ -4.40731 & -4.35495 & -6.82534 & -6.82534 \\ -2.28388 & 2.24883 & -0.221569 & -0.221569 \\ 2.19646 & -2.5483 & -0.221569 & -0.221569 \\ -3.02638 & -3.07345 & -9.90371 & 0.359204 \\ -3.02638 & -3.07345 & 0.359204 & -9.90371 \\ 5.90266 & 5.856 & 9.26448 & 9.26448 \end{pmatrix}$$

$$K_{14} = \{\{1, 3\}, \{1, 4\}, \{2, 5\}, \{2, 3, 4\}\}$$

$$V_{14} = \begin{pmatrix} 4.1166 & -1.38828 & 0.447443 & 0.457539 \\ -2.88162 & 3.34045 & 1.06947 & 1.07957 \\ 0.971728 & 1.1487 & 5.65055 & -0.339351 \\ 0.971728 & 1.1487 & -0.349447 & 5.66065 \\ -2.02827 & -1.8513 & -3.34945 & -3.33935 \\ -4.60407 & 1.1487 & -0.349447 & -0.339351 \\ 0.971728 & -5.94778 & -0.349447 & -0.339351 \\ -2.67421 & -3.12544 & -5.1572 & 1.0032 \\ 1.2171 & 1.43635 & -0.439801 & -6.68097 \\ 3.93929 & 4.08991 & 2.82732 & 2.83742 \end{pmatrix}$$

$$K_{15} = \{\{1, 2\}, \{1, 3\}, \{1, 4\}, \{1, 5\}, \{2, 3, 4\}\}$$

$$V_{15} = \begin{pmatrix} 5.82439 & 1.77879 & 1.77879 & 1.77879 \\ 0.665767 & 4.07837 & -1.61045 & -1.61045 \\ 0.665767 & -1.61045 & 4.07837 & -1.61045 \\ 0.665767 & -1.61045 & -1.61045 & 4.07837 \\ -3.75857 & -1.28243 & -1.28243 & -1.28243 \\ -5.8775 & -1.95931 & -1.95931 & -1.95931 \\ -0.697347 & -4.22592 & 1.77879 & 1.77879 \\ -0.697347 & 1.77879 & -4.22592 & 1.77879 \\ -0.697347 & 1.77879 & 1.77879 & -4.22592 \\ 3.90642 & 1.27381 & 1.27381 & 1.27381 \end{pmatrix}$$

$$K_{16} = \{\{1, 2\}, \{1, 3\}, \{1, 4\}, \{1, 5\}, \{2, 4\}, \{2, 5\}, \{3, 4\}, \{3, 5\}\}$$

$$V_{16} = \begin{pmatrix} 4.3066 & 3.46438 & 0.984076 & 0. \\ 0.188191 & 9.83081 & -4.40958 & 0. \\ 0.043959 & -3.39819 & 3.31928 & 0. \\ -0.0412306 & 3.46438 & 0.984076 & 4. \\ -4.04123 & -0.535618 & -3.01592 & -4. \\ -4.47278 & -3.2773 & -0.983435 & 0. \\ -0.0412306 & -22.556 & 0.984076 & 0. \\ -0.0412306 & 3.46438 & -3.54121 & 0. \\ -0.0316237 & 2.69048 & 0.758219 & -4.1622 \\ 4.13058 & 6.85269 & 4.92042 & 4.1622 \end{pmatrix}$$

$$K_{17} = \{\{1, 2\}, \{1, 3\}, \{2, 4\}, \{3, 5\}, \{1, 4, 5\}\}$$

$$V_{17} = \begin{pmatrix} 7.41015 & -0.717525 & -0.262645 & -0.872722 \\ -0.923182 & 2.8539 & -0.262645 & -0.872722 \\ 0.46343 & 0.163048 & 3.30048 & 0.38738 \\ -0.923182 & -0.717525 & -0.262645 & 6.27014 \\ -4.64901 & -5.35954 & -6.07562 & -4.8276 \\ -10.9569 & -0.0804819 & -0.0934891 & 0.0388881 \\ 1.70229 & -3.77358 & 0.180082 & 1.51321 \\ -0.923182 & -0.717525 & -4.68125 & -0.872722 \\ 1.43788 & 0.781874 & 0.135494 & -8.17602 \\ 7.3617 & 7.56736 & 8.02224 & 7.41216 \end{pmatrix}$$

$$K_{18} = \{\{1, 2\}, \{1, 3\}, \{2, 3\}, \{2, 4\}, \{1, 4, 5\}\}$$

$$V_{18} = \begin{pmatrix} 7.8772 & 2.16155 & 2.10867 & -0.195498 \\ 0.397494 & 2.05151 & -1.48255 & 0.170342 \\ 0.397494 & -1.50326 & 1.83524 & 0.170342 \\ -0.456132 & 2.16155 & 2.10867 & 6.94736 \\ -6.70613 & -4.08845 & -4.14133 & -6.4455 \\ -10.259 & -2.87373 & -2.82549 & 0.307148 \\ -0.456132 & -2.57267 & 2.10867 & -0.195498 \\ -0.456132 & 2.16155 & -2.30993 & -0.195498 \\ 0.717024 & -2.87508 & -2.82682 & -9.10047 \\ 8.94434 & 5.37702 & 5.42488 & 8.53727 \end{pmatrix}$$

$$K_{19} = \{\{1, 4\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{19} = \begin{pmatrix} 1.71677 & 1.02556 & 1.02556 & -1.30832 \\ 1.58959 & 8.63417 & -1.14844 & 1.93213 \\ 1.58959 & -1.14844 & 8.63417 & 1.93213 \\ -1.14944 & 1.02556 & 1.02556 & 3.1187 \\ -2.86586 & -5.60388 & -5.60388 & -2.52332 \\ -2.09834 & -1.14844 & -1.14844 & 1.93213 \\ -1.99853 & -10.7029 & 1.69949 & -2.31285 \\ -1.99853 & 1.69949 & -10.7029 & -2.31285 \\ 1.58959 & -1.14844 & -1.14844 & -3.76408 \\ 3.62515 & 7.36726 & 7.36726 & 3.30634 \end{pmatrix}$$

$$K_{20} = \{\{1, 2\}, \{1, 5\}, \{2, 3\}, \{2, 4\}, \{2, 5\}, \{1, 3, 4\}\}$$

$$V_{20} = \begin{pmatrix} 4.46327 & 0.597179 & -1.57402 & -1.57402 \\ 1.88802 & 5.62039 & 1.74821 & 1.74821 \\ -1.71224 & 0.602691 & 3.88572 & -1.58895 \\ -1.71224 & 0.602691 & -1.58895 & 3.88572 \\ -1.23698 & -3.75461 & -1.37679 & -1.37679 \\ -4.61708 & -0.629613 & 1.74821 & 1.74821 \\ -2.07372 & -5.67445 & -1.92402 & -1.92402 \\ 1.88802 & -0.629613 & -4.03411 & 1.74821 \\ 1.88802 & -0.629613 & 1.74821 & -4.03411 \\ 1.22492 & 3.89495 & 1.36754 & 1.36754 \end{pmatrix}$$

$$K_{21} = \{\{1, 2\}, \{2, 5\}, \{1, 3, 4\}, \{2, 3, 4\}\}$$

$$V_{21} = \begin{pmatrix} 3.74826 & 0.740041 & -1.65196 & -1.65196 \\ 1.68134 & 6.04981 & 1.81063 & 1.81063 \\ -1.5181 & 0.73107 & 4.28888 & -1.63137 \\ -1.5181 & 0.73107 & -1.63137 & 4.28888 \\ -1.31866 & -3.76837 & -1.18937 & -1.18937 \\ -3.89447 & -0.768372 & 1.81063 & 1.81063 \\ -1.85352 & -6.10399 & -1.99222 & -1.99222 \\ 1.68134 & -0.768372 & -4.43427 & 1.81063 \\ 1.68134 & -0.768372 & 1.81063 & -4.43427 \\ 1.31059 & 3.92549 & 1.17844 & 1.17844 \end{pmatrix}$$

$$K_{22} = \{\{1, 3\}, \{1, 4\}, \{2, 3\}, \{2, 4\}, \{3, 4\}, \{1, 2, 5\}\}$$

$$V_{22} = \begin{pmatrix} 6.1713 & -0.0523169 & 0.190174 & 0.190174 \\ -0.0523169 & 6.1713 & 0.190174 & 0.190174 \\ 0.290991 & 0.290991 & 4.76718 & -0.788371 \\ 0.290991 & 0.290991 & -0.788371 & 4.76718 \\ -3.28931 & -3.28931 & -2.54554 & -2.54554 \\ -6.21411 & 0.290991 & -0.788371 & -0.788371 \\ 0.290991 & -6.21411 & -0.788371 & -0.788371 \\ -0.516037 & -0.516037 & -4.21299 & 1.51193 \\ -0.516037 & -0.516037 & 1.51193 & -4.21299 \\ 3.54354 & 3.54354 & 2.46418 & 2.46418 \end{pmatrix}$$

$$K_{23} = \{\{1, 2\}, \{2, 4\}, \{1, 3, 4\}, \{1, 3, 5\}\}$$

$$V_{23} = \begin{pmatrix} 9.36226 & 1.58358 & -0.946449 & 1.90212 \\ 1.21496 & 1.7561 & 0.850443 & -1.32583 \\ -1.35203 & 1.58358 & 7.87708 & 1.90212 \\ 1.21494 & -1.16733 & 0.850428 & 3.05937 \\ -5.76379 & -2.82818 & -5.35821 & -2.50965 \\ -11.4075 & -1.94615 & 1.35915 & -2.23968 \\ -1.35203 & -2.10948 & -0.946449 & 1.90212 \\ 1.9587 & -1.96439 & -9.62197 & -2.26108 \\ -1.35203 & 1.58358 & -0.946449 & -3.63747 \\ 7.47655 & 3.50869 & 6.88243 & 3.20798 \end{pmatrix}$$

$$K_{24} = \{\{1, 3\}, \{1, 5\}, \{2, 3\}, \{2, 5\}, \{3, 4\}, \{3, 5\}, \{1, 2, 4\}\}$$

$$V_{24} = \begin{pmatrix} 2.74565 & -5.35688 & 0.0688986 & -1.52317 \\ -1.20659 & 20.8663 & 0.0527352 & -1.1587 \\ 1.58827 & 5.5218 & 4.28168 & 1.52195 \\ -1.45761 & -4.91492 & 0.0634122 & 2.58679 \\ -2.41173 & 1.5218 & -4.06615 & -2.47805 \\ -2.93701 & 5.5218 & -0.0661458 & 1.52195 \\ 1.58827 & -20.4986 & -0.0661458 & 1.52195 \\ -1.88548 & -6.38103 & -4.42593 & -1.80985 \\ 1.58827 & 5.5218 & -0.0661458 & -2.64132 \\ 2.38795 & -1.80208 & 4.22379 & 2.45845 \end{pmatrix}$$

$$K_{25} = \{\{1, 2\}, \{2, 3\}, \{3, 4\}, \{1, 3, 5\}, \{1, 4, 5\}\}$$

$$V_{25} = \begin{pmatrix} 9.64591 & 2.40048 & 2.74402 & 0.804903 \\ 0.317634 & 1.00125 & -2.11351 & -0.721749 \\ 0.317612 & -1.92788 & 2.41372 & -0.721697 \\ -0.354092 & 2.40048 & 2.74402 & 5.35036 \\ -8.68743 & -5.93285 & -5.58931 & -7.52843 \\ -11.6591 & -3.10442 & -3.43368 & -1.13666 \\ -0.354092 & -1.19429 & 2.74402 & 0.804903 \\ -0.354092 & 2.40048 & -2.81154 & 0.804903 \\ 0.489491 & -3.03544 & -3.35627 & -6.63965 \\ 10.6382 & 6.99217 & 6.65853 & 8.98312 \end{pmatrix}$$

$$K_{26} = \{\{1, 2\}, \{1, 3, 4\}, \{1, 3, 5\}, \{3, 4, 5\}\}$$

$$V_{26} = \begin{pmatrix} 7.44818 & 2.09689 & 2.78842 & -5.59108 \times 10^{-13} \\ 0.174379 & 0.83159 & -2.25703 & -5.59108 \times 10^{-13} \\ 0.174379 & -1.5174 & 4.47374 & -5.59108 \times 10^{-13} \\ -0.267018 & 2.08479 & 2.77154 & 6.67807 \\ -6.94509 & -4.59328 & -3.90653 & -6.67807 \\ -5.83125 & -1.5174 & -2.25703 & -5.59108 \times 10^{-13} \\ -0.152806 & -0.650526 & 1.4704 & -5.59108 \times 10^{-13} \\ -0.146709 & 1.10297 & -3.76664 & -5.59108 \times 10^{-13} \\ 0.174379 & -1.5174 & -2.25703 & -5.19718 \\ 5.37155 & 3.67977 & 2.94015 & 5.19718 \end{pmatrix}$$

$$K_{27} = \{\{1, 2\}, \{1, 3\}, \{1, 4\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{27} = \begin{pmatrix} 4.15219 & 0.430892 & 0.430892 & -1.08895 \\ -0.0572164 & 6.53062 & 0.036269 & -0.0551089 \\ -0.0572164 & 0.036269 & 6.53062 & -0.0551089 \\ -1.02022 & 0.430892 & 0.430892 & 4.68028 \\ -2.09935 & -3.40575 & -3.40575 & -2.0242 \\ -2.26515 & -1.22613 & -1.22613 & 3.25216 \\ -1.02022 & -6.35704 & 0.430892 & -1.08895 \\ -1.02022 & 0.430892 & -6.35704 & -1.08895 \\ 1.22145 & -0.487705 & -0.487705 & -4.62839 \\ 2.16595 & 3.61706 & 3.61706 & 2.09722 \end{pmatrix}$$

$$K_{28} = \{\{1, 2\}, \{1, 3\}, \{1, 4\}, \{1, 5\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{28} = \begin{pmatrix} 4.11692 & 1.89607 & 2.31439 & -2.62901 \times 10^{-13} \\ -0.642649 & 1.37563 & -3.03355 & -2.62901 \times 10^{-13} \\ -0.664683 & -2.43124 & 2.96185 & -2.62901 \times 10^{-13} \\ 0.616921 & 1.89607 & 2.31439 & 7. \\ -6.38308 & -5.10393 & -4.68561 & -7. \\ -3.05484 & -1.32752 & -1.73919 & -2.62901 \times 10^{-13} \\ 0.616921 & -1.04382 & 2.31439 & -2.62901 \times 10^{-13} \\ 0.616921 & 1.89607 & -2.48227 & -2.62901 \times 10^{-13} \\ -0.328429 & -1.29589 & -1.69942 & -5.43443 \\ 5.106 & 4.13854 & 3.73501 & 5.43443 \end{pmatrix}$$

$$K_{29} = \{\{2, 4\}, \{1, 2, 3\}, \{1, 2, 5\}, \{1, 3, 4\}\}$$

$$V_{29} = \begin{pmatrix} 7.52028 & -2.62705 & 0.23325 & -1.54675 \\ -3.11792 & 6.08663 & 0.235749 & -1.56115 \\ 2.338 & 2.01498 & 4.15811 & 1.26117 \\ -3.15396 & -2.68168 & 0.238981 & 2.78867 \\ -0.603176 & -0.926197 & -3.19483 & -1.68001 \\ -6.19493 & 2.01498 & -0.25365 & 1.26117 \\ 2.338 & -5.01214 & -0.25365 & 1.26117 \\ -1.89447 & -1.60458 & -3.36098 & -0.928266 \\ 2.338 & 2.01498 & -0.25365 & -2.25239 \\ 0.430186 & 0.720076 & 2.45066 & 1.39639 \end{pmatrix}$$

$$K_{30} = \{\{1, 2\}, \{1, 3\}, \{1, 4\}, \{3, 4\}, \{2, 3, 5\}, \{2, 4, 5\}\}$$

$$V_{30} = \begin{pmatrix} 3.40665 & 1.92042 & 1.74442 & 1.74442 \\ -0.0378827 & 5.13418 & -2.2722 & -2.2722 \\ -0.0377334 & -2.52968 & 4.375 & -2.26463 \\ -0.0377334 & -2.52968 & -2.26463 & 4.375 \\ -3.56698 & -1.68782 & -1.86383 & -1.86383 \\ -2.59012 & -1.41048 & -1.25636 & -1.25636 \\ 0.0412634 & -4.0852 & 1.74442 & 1.74442 \\ 0.0412634 & 1.92042 & -3.45276 & 1.74442 \\ 0.0412634 & 1.92042 & 1.74442 & -3.45276 \\ 2.74001 & 1.34741 & 1.50153 & 1.50153 \end{pmatrix}$$

$$K_{31} = \{\{1, 2\}, \{1, 3\}, \{2, 3, 4\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{31} = \begin{pmatrix} 1.59744 & 0.788038 & 0.788038 & -1.5827 \\ 1.61811 & 7.93596 & -1.1426 & 1.89941 \\ 1.6181 & -1.1426 & 7.93596 & 1.8994 \\ -1.28717 & 0.788038 & 0.788038 & 3.00913 \\ -2.97927 & -5.64499 & -5.64499 & -2.70929 \\ -1.34669 & -0.699266 & -0.699266 & 1.09981 \\ -1.28717 & -6.59203 & 0.788038 & -1.5827 \\ -1.28717 & 0.788038 & -6.59203 & -1.5827 \\ 0.950965 & -0.699265 & -0.699265 & -2.55769 \\ 2.40286 & 4.47807 & 4.47807 & 2.10733 \end{pmatrix}$$

$$K_{32} = \{\{1, 4\}, \{1, 5\}, \{2, 4\}, \{2, 5\}, \{1, 2, 3\}, \{3, 4, 5\}\}$$

$$V_{32} = \begin{pmatrix} 4.75156 & 1.14504 & 1.45958 & -3.39351 \times 10^{-8} \\ 1.14504 & 4.75155 & 1.45958 & -3.39351 \times 10^{-8} \\ -3.29552 & -3.29552 & 2.10883 & -3.39351 \times 10^{-8} \\ 1.37289 & 1.37289 & 1.76823 & 6.73077 \\ -5.35788 & -5.35788 & -4.96254 & -6.73077 \\ -1.41322 & 1.37289 & 1.76823 & -3.39351 \times 10^{-8} \\ 1.37289 & -1.41322 & 1.76823 & -3.39351 \times 10^{-8} \\ 1.37289 & 1.37289 & -3.42895 & -3.39351 \times 10^{-8} \\ -2.55142 & -2.55142 & -3.5477 & -5.15416 \\ 2.60277 & 2.60277 & 1.6065 & 5.15416 \end{pmatrix}$$

$$K_{33} = \{\{1, 2\}, \{1, 4\}, \{1, 3, 5\}, \{2, 3, 4\}, \{3, 4, 5\}\}$$

$$V_{33} = \begin{pmatrix} 4.03092 & -0.0358492 & -2.6741 & -2.36891 \\ 1.63049 & 3.3732 & 1.97468 & 1.77802 \\ -2.15393 & -0.036128 & 5.53633 & -2.38418 \\ -2.15494 & -0.0361484 & -2.69247 & 4.66687 \\ -1.94094 & -3.53156 & -1.59675 & -1.79341 \\ -3.08442 & 0.0398697 & 1.97468 & 1.77802 \\ -1.12873 & -2.50689 & -1.42724 & -1.25665 \\ 1.63049 & 0.0398697 & -4.31187 & 1.77802 \\ 1.63049 & 0.0398697 & 1.97468 & -3.61045 \\ 1.54056 & 2.65376 & 1.24206 & 1.41265 \end{pmatrix}$$

$$K_{34} = \{\{1, 2\}, \{4, 5\}, \{1, 3, 4\}, \{1, 3, 5\}, \{2, 3, 4\}\}$$

$$V_{34} = \begin{pmatrix} 5.70743 & -0.343874 & 0.154763 & 0.117507 \\ -0.542566 & 2.98946 & 0.154763 & 0.117507 \\ -0.0602566 & 0.0103672 & 8.19638 & -0.0903697 \\ 0.590881 & 0.488607 & -0.496594 & 6.74253 \\ -2.84424 & -2.9784 & -4.12083 & -3.97799 \\ -4.04451 & 0.532057 & -0.530591 & -0.396509 \\ 0.126726 & -2.36083 & -0.229859 & -0.17096 \\ -0.542566 & -0.343874 & -6.13179 & 0.117507 \\ -0.542566 & -0.343874 & 0.154763 & -5.27096 \\ 2.15167 & 2.35036 & 2.849 & 2.81174 \end{pmatrix}$$

$$K_{35} = \{\{1, 2\}, \{1, 3\}, \{1, 4\}, \{2, 3, 5\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{35} = \begin{pmatrix} 2.86777 & 1.75786 & 1.75786 & 1.75786 \\ -0.156497 & 5.15059 & -2.74231 & -2.74231 \\ -0.156497 & -2.74231 & 5.15059 & -2.74231 \\ -0.156497 & -2.74231 & -2.74231 & 5.15059 \\ -3.7989 & -2.24214 & -2.24214 & -2.24214 \\ -1.67115 & -0.965457 & -0.965457 & -0.965457 \\ 0.201101 & -3.25027 & 1.75786 & 1.75786 \\ 0.201101 & 1.75786 & -3.25027 & 1.75786 \\ 0.201101 & 1.75786 & 1.75786 & -3.25027 \\ 2.46847 & 1.5183 & 1.5183 & 1.5183 \end{pmatrix}$$

$$K_{36} = \{\{1, 2, 3\}, \{1, 2, 5\}, \{1, 3, 4\}, \{2, 3, 4\}\}$$

$$V_{36} = \begin{pmatrix} 6.79273 & -2.88548 & 0.245188 & -1.55933 \\ -2.88548 & 6.79273 & 0.245188 & -1.55933 \\ 2.14169 & 2.14169 & 4.18757 & 1.24333 \\ -2.9205 & -2.9205 & 0.248763 & 2.82871 \\ -0.742929 & -0.742929 & -3.15249 & -1.64128 \\ -5.51006 & 2.14169 & -0.267876 & 1.24333 \\ 2.14169 & -5.51006 & -0.267876 & 1.24333 \\ -1.69836 & -1.69836 & -3.33251 & -0.897508 \\ 2.14169 & 2.14169 & -0.267876 & -2.24162 \\ 0.539534 & 0.539534 & 2.36192 & 1.34038 \end{pmatrix}$$

$$K_{37} = \{\{1, 4\}, \{1, 5\}, \{1, 2, 3\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{37} = \begin{pmatrix} 4.70542 & 1.2343 & 1.4859 & 1.78754 \times 10^{-10} \\ 1.20697 & 4.99603 & 1.48587 & 1.78754 \times 10^{-10} \\ -3.03673 & -3.13408 & 2.0785 & 1.78754 \times 10^{-10} \\ 1.43163 & 1.46554 & 1.77668 & 7. \\ -5.56837 & -5.53446 & -5.22332 & -7. \\ -1.30247 & 1.46554 & 1.77668 & 1.78754 \times 10^{-10} \\ 1.43163 & -1.47435 & 1.77668 & 1.78754 \times 10^{-10} \\ 1.43163 & 1.46554 & -3.01998 & 1.78754 \times 10^{-10} \\ -2.86059 & -2.95276 & -3.77922 & -5.42146 \\ 2.56087 & 2.4687 & 1.64224 & 5.42146 \end{pmatrix}$$

$$K_{38} = \{\{1, 3\}, \{1, 5\}, \{2, 3\}, \{1, 2, 4\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{38} = \begin{pmatrix} 4.62248 & 1.14904 & 0.097852 & 1.46104 \\ 1.12417 & 4.9107 & 0.0978532 & 1.46106 \\ 1.36526 & 1.39723 & 6.25626 & 1.79624 \\ -3.35693 & -3.46368 & -0.237689 & 2.1653 \\ -5.63474 & -5.60277 & -6.88409 & -5.20376 \\ -1.36883 & 1.39723 & 0.115906 & 1.79624 \\ 1.36526 & -1.54266 & 0.115906 & 1.79624 \\ -2.24298 & -2.317 & -4.91648 & -3.22018 \\ 1.36526 & 1.39723 & 0.115906 & -3.67196 \\ 2.76104 & 2.67467 & 5.23858 & 1.6198 \end{pmatrix}$$

$$K_{39} = \{\{2, 3\}, \{1, 2, 4\}, \{1, 2, 5\}, \{1, 3, 4\}, \{1, 3, 5\}\}$$

$$V_{39} = \begin{pmatrix} 5.26832 & -2.29659 & -2.29659 & -1.65286 \times 10^{-11} \\ -2.57208 & 4.48224 & -2.28925 & -1.65286 \times 10^{-11} \\ -2.57208 & -2.28925 & 4.48224 & -1.65286 \times 10^{-11} \\ 1.87591 & 1.6968 & 1.6968 & 3.43137 \\ -1.55546 & -1.73457 & -1.73457 & -3.43137 \\ -4.05528 & 1.6968 & 1.6968 & -1.65286 \times 10^{-11} \\ 1.87591 & -3.42031 & 1.6968 & -1.65286 \times 10^{-11} \\ 1.87591 & 1.6968 & -3.42031 & -1.65286 \times 10^{-11} \\ -1.33757 & -1.18295 & -1.18295 & -2.53398 \\ 1.19641 & 1.35102 & 1.35102 & 2.53398 \end{pmatrix}$$

$$K_{40} = \{\{1, 2\}, \{1, 3, 4\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 4\}\}$$

$$V_{40} = \begin{pmatrix} 6.50187 & -0.377635 & 0.169503 & 0.169503 \\ -0.770858 & 2.30693 & 0.169503 & 0.169503 \\ -0.259606 & -0.0388158 & 8.38655 & -0.108924 \\ -0.259606 & -0.0388158 & -0.108924 & 8.38655 \\ -2.10637 & -2.57359 & -5.10656 & -5.10656 \\ -2.50265 & 1.4318 & -1.31741 & -1.31741 \\ -0.719361 & -2.00612 & 0.141457 & 0.141457 \\ -0.770858 & -0.377635 & -5.10227 & 0.169503 \\ -0.770858 & -0.377635 & 0.169503 & -5.10227 \\ 1.65829 & 2.05151 & 2.59865 & 2.59865 \end{pmatrix}$$

$$K_{41} = \{\{1, 2\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 4\}, \{3, 4, 5\}\}$$

$$V_{41} = \begin{pmatrix} 4.65509 & -0.142655 & -2.87915 & -2.87915 \\ 1.62803 & 2.87 & 1.80509 & 1.80509 \\ -2.53287 & -0.143184 & 5.51671 & -2.88671 \\ -2.53287 & -0.143184 & -2.88671 & 5.51671 \\ -2.29354 & -3.73613 & -2.11648 & -2.11648 \\ -2.87694 & 0.185438 & 1.80509 & 1.80509 \\ -0.856914 & -1.66122 & -0.996917 & -0.996917 \\ 1.62803 & 0.185438 & -3.46668 & 1.80509 \\ 1.62803 & 0.185438 & 1.80509 & -3.46668 \\ 1.55396 & 2.40005 & 1.41395 & 1.41395 \end{pmatrix}$$

$$K_{42} = \{\{1, 2\}, \{4, 5\}, \{1, 3, 4\}, \{1, 3, 5\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{42} = \begin{pmatrix} 4.34173 & -0.287919 & 0.00156858 & -2.0607 \times 10^{-11} \\ -0.287904 & 4.34171 & 0.00156858 & -2.0607 \times 10^{-11} \\ 0.0495935 & 0.0495787 & 5.65385 & -2.0607 \times 10^{-11} \\ 0.560776 & 0.560761 & -0.0583327 & 5.08913 \\ -4.52835 & -4.52836 & -5.14746 & -5.08913 \\ -2.91281 & 0.19492 & -0.032511 & -2.0607 \times 10^{-11} \\ 0.21088 & -2.89673 & -0.0336365 & -2.0607 \times 10^{-11} \\ -0.287904 & -0.287919 & -3.81798 & -2.0607 \times 10^{-11} \\ -0.287904 & -0.287919 & 0.00156858 & -3.4298 \\ 3.1419 & 3.14188 & 3.43137 & 3.4298 \end{pmatrix}$$

$$K_{43} = \{\{1, 2\}, \{1, 5\}, \{1, 3, 4\}, \{2, 3, 4\}, \{2, 3, 5\}, \{2, 4, 5\}\}$$

$$V_{43} = \begin{pmatrix} 3.21413 & -3.99415 & 0.70879 & 0.70879 \\ 0.700587 & 45.4026 & 0.872261 & 0.872261 \\ -0.237557 & 0.207118 & 4.56639 & -0.429765 \\ -0.237557 & 0.207118 & -0.429765 & 4.56639 \\ -4.29941 & -9.59736 & -4.12774 & -4.12774 \\ -1.12814 & -4.59736 & 0.872261 & 0.872261 \\ -2.40215 & -23.3649 & -3.43394 & -3.43394 \\ 0.700587 & -4.59736 & -2.60232 & 0.872261 \\ 0.700587 & -4.59736 & 0.872261 & -2.60232 \\ 2.98893 & 4.93164 & 2.70179 & 2.70179 \end{pmatrix}$$

$$K_{44} = \{\{1, 2, 4\}, \{1, 3, 4\}, \{1, 3, 5\}, \{2, 3, 4\}, \{3, 4, 5\}\}$$

$$V_{44} = \begin{pmatrix} 4.3098 & -1.21245 & 0.607236 & -2.07658 \\ -0.768338 & 2.84029 & 0.164074 & -0.863034 \\ 1.39427 & 0.988524 & 7.62883 & 1.51545 \\ -0.76835 & -0.468874 & 0.164079 & 6.228 \\ -2.17716 & -2.5829 & -4.27593 & -2.05598 \\ -3.32065 & 0.988524 & -0.704502 & 1.51545 \\ 1.39427 & -1.5261 & -0.704502 & 1.51545 \\ -2.35047 & -1.53507 & -5.40808 & -2.6031 \\ 1.39427 & 0.988524 & -0.704502 & -3.87302 \\ 0.892371 & 1.51954 & 3.23329 & 0.69736 \end{pmatrix}$$

$$K_{45} = \{\{1, 2, 4\}, \{1, 2, 5\}, \{1, 3, 4\}, \{1, 3, 5\}, \{2, 3, 4\}\}$$

$$V_{45} = \begin{pmatrix} 6.06065 & -2.52067 & -2.52067 & 0.130496 \\ -2.91497 & 5.08782 & -2.51379 & 0.12998 \\ -2.91496 & -2.51379 & 5.08782 & 0.12998 \\ 1.69321 & 1.4947 & 1.4947 & 3.67564 \\ -1.0095 & -1.208 & -1.208 & -2.87322 \\ -3.87864 & 1.4947 & 1.4947 & -0.170513 \\ 1.69321 & -3.21994 & 1.4947 & -0.170513 \\ 1.69321 & 1.4947 & -3.21994 & -0.170513 \\ -1.03358 & -0.877235 & -0.877235 & -2.33358 \\ 0.611367 & 0.767709 & 0.767709 & 1.65223 \end{pmatrix}$$

$$K_{46} = \{\{1, 2\}, \{1, 3, 4\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{46} = \begin{pmatrix} 2.44432 & -1.37489 & 0.170749 & -2.86882 \times 10^{-14} \\ -1.55568 & 1.36483 & 0.170749 & -2.86882 \times 10^{-14} \\ 2.42923 & 2.30278 & 8.28334 & -2.86882 \times 10^{-14} \\ 2.46204 & 2.33305 & -0.356995 & 7.3562 \\ -4.89416 & -5.02315 & -7.71319 & -7.3562 \\ -1.40592 & 0.968604 & -0.162795 & -2.86882 \times 10^{-14} \\ 0.742756 & -0.891004 & -0.13116 & -2.86882 \times 10^{-14} \\ -1.55568 & -1.37489 & -5.04664 & -2.86882 \times 10^{-14} \\ -1.55568 & -1.37489 & 0.170749 & -4.44444 \\ 2.88877 & 3.06955 & 4.61519 & 4.44444 \end{pmatrix}$$

$$K_{47} = \{\{1, 3\}, \{1, 2, 5\}, \{1, 4, 5\}, \{2, 3, 4\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{47} = \begin{pmatrix} 4.3239 & -0.0265589 & -0.800849 & -0.910681 \\ 0.407875 & 4.97678 & 3.50221 & 3.78362 \\ -0.0885898 & -0.0429044 & 3.73183 & -1.2107 \\ -0.0885898 & -0.0429044 & -1.07586 & 4.74168 \\ -5.37392 & -5.34171 & -6.11597 & -6.2258 \\ -3.0864 & -0.0429044 & -1.07586 & -1.2107 \\ -0.0885898 & -3.32897 & -1.07586 & -1.2107 \\ 0.276928 & 0.157428 & -0.961109 & 2.46633 \\ 0.170325 & 0.0990006 & 1.31168 & -2.64801 \\ 3.54706 & 3.59274 & 2.55979 & 2.42495 \end{pmatrix}$$

$$K_{48} = \{\{1, 2, 4\}, \{1, 2, 5\}, \{1, 3, 4\}, \{1, 3, 5\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{48} = \begin{pmatrix} 5.28376 & -2.77231 & -2.77231 & -0.117596 \\ -2.77231 & 5.28376 & -2.77231 & -0.117596 \\ -2.77231 & -2.77231 & 5.28375 & -0.117596 \\ 1.70932 & 1.70932 & 1.70932 & 2.87718 \\ -2.06427 & -2.06427 & -2.06427 & -3.6175 \\ -3.24109 & 1.70932 & 1.70932 & 0.156087 \\ 1.70932 & -3.24109 & 1.70932 & 0.156087 \\ 1.70932 & 1.70932 & -3.24109 & 0.156087 \\ -0.916261 & -0.916261 & -0.916261 & -1.64169 \\ 1.35453 & 1.35453 & 1.35453 & 2.26654 \end{pmatrix}$$

$$K_{49} = \{\{1, 2, 3\}, \{1, 2, 4\}, \{1, 2, 5\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 4\}\}$$

$$V_{49} = \begin{pmatrix} 3.33855 & 0.3612 & -2.77727 & -2.77727 \\ 0.374673 & 5.54308 & 0.35217 & 0.35217 \\ 0.0367642 & -0.168643 & 5.80573 & 0.0457489 \\ 0.0367641 & -0.168643 & 0.0457489 & 5.80573 \\ -2.68655 & -3.28738 & -2.70905 & -2.70905 \\ -2.93536 & -0.226154 & 0.35217 & 0.35217 \\ -0.908691 & -2.91799 & -0.811604 & -0.811604 \\ 0.374673 & -0.226154 & -2.57593 & 0.35217 \\ 0.374673 & -0.226154 & 0.35217 & -2.57593 \\ 1.99449 & 1.31684 & 1.96587 & 1.96587 \end{pmatrix}$$

$$K_{50} = \{\{1, 2\}, \{1, 3, 4\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 4\}, \{2, 3, 5\}, \{2, 4, 5\}\}$$

$$V_{50} = \begin{pmatrix} 3.81402 & 0.31402 & 9.40581 \times 10^{-14} & -1.08358 \times 10^{-14} \\ 0.31402 & 3.81402 & 9.40581 \times 10^{-14} & -1.08358 \times 10^{-14} \\ 0.72944 & 0.72944 & 6.99387 & -1.08358 \times 10^{-14} \\ 0.72944 & 0.72944 & 9.40581 \times 10^{-14} & 6.99387 \\ -6.26443 & -6.26443 & -6.99387 & -6.99387 \\ -2.33846 & -0.865234 & 9.40581 \times 10^{-14} & -1.08358 \times 10^{-14} \\ -0.865237 & -2.33847 & 9.40581 \times 10^{-14} & -1.08358 \times 10^{-14} \\ 0.31402 & 0.31402 & -2.93915 & -1.08358 \times 10^{-14} \\ 0.31402 & 0.31402 & 9.40581 \times 10^{-14} & -2.93915 \\ 3.25317 & 3.25317 & 2.93915 & 2.93915 \end{pmatrix}$$

$$K_{51} = \{\{1, 2, 3\}, \{1, 2, 4\}, \{1, 2, 5\}, \{1, 3, 4\}, \{1, 4, 5\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{51} = \begin{pmatrix} 4.62773 & 3.92139 & -2.19253 & 3.27134 \\ -0.103775 & 6.22807 & -0.0896964 & -0.154883 \\ 1.78626 & -3.28511 & 7.98817 & -2.47465 \\ -0.103775 & -0.375702 & -0.0896964 & 3.38047 \\ -3.74088 & -3.75069 & -3.70133 & -3.56207 \\ -3.25485 & -0.375702 & -0.0896964 & -0.154883 \\ -1.14286 & -1.49963 & -0.872434 & 1.12046 \\ -0.103775 & -0.375702 & -2.82459 & -0.154883 \\ 0.675563 & -1.57537 & 0.497373 & -2.58016 \\ 1.36036 & 1.08843 & 1.37444 & 1.30925 \end{pmatrix}$$

$$K_{52} = \{\{1, 2, 3\}, \{1, 2, 4\}, \{1, 3, 4\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 4\}, \{2, 3, 5\}, \{2, 4, 5\}\}$$

$$V_{52} = \begin{pmatrix} 4.35569 & 1.0007 & -0.466215 & -0.466215 \\ -0.241673 & 17.8975 & 3.40339 & 3.40339 \\ -0.00119649 & -0.126623 & 3.66625 & -0.333745 \\ -0.00119649 & -0.126623 & -0.333745 & 3.66625 \\ -4.01029 & -5.40242 & -4.18321 & -4.18321 \\ -1.52881 & -0.126623 & -0.333745 & -0.333745 \\ -0.00119649 & -17.6942 & -0.333745 & -0.333745 \\ 0.0122588 & 1.65284 & -1.94853 & -0.542848 \\ 0.0122121 & 1.64666 & -0.542122 & -1.9478 \\ 1.40421 & 1.27878 & 1.07166 & 1.07166 \end{pmatrix}$$

$$K_{53} = \{\{1, 2, 4\}, \{1, 3, 4\}, \{1, 3, 5\}, \{2, 3, 4, 5\}\}$$

$$V_{53} = \begin{pmatrix} 2.43598 & -0.346458 & -0.0111131 & -0.693792 \\ -0.256764 & 3.65434 & -0.00514862 & -0.785085 \\ 1.41391 & 1.5997 & 8.69858 & 2.04895 \\ -0.202941 & -0.346452 & -0.0111137 & 6.82466 \\ -6.13326 & -5.94747 & -7.73748 & -5.49822 \\ -0.125239 & 1.5997 & -0.190305 & 2.04895 \\ 1.41391 & -0.771845 & -0.190305 & 2.04895 \\ -2.15388 & -2.69473 & -4.9162 & -4.00324 \\ 1.41391 & 1.5997 & -0.190305 & -2.33617 \\ 2.19439 & 1.65353 & 4.55338 & 0.345018 \end{pmatrix}$$

$$K_{54} = \{\{1, 2, 4\}, \{1, 2, 5\}, \{1, 3, 4\}, \{1, 3, 5\}, \{2, 3, 4, 5\}\}$$

$$V_{54} = \begin{pmatrix} 3.28306 & -0.440627 & -0.456394 & -0.139104 \\ -1.52226 & 4.22945 & -2.99929 & 0.17499 \\ 1.53402 & 2.52827 & 9.88315 & -0.505817 \\ 0.00312176 & -0.232609 & -0.248375 & 6.19884 \\ -3.64271 & -3.87844 & -3.89421 & -3.81063 \\ -1.34661 & -0.232609 & -0.248375 & -0.164798 \\ 0.00312176 & -3.1289 & -0.248375 & -0.164798 \\ 0.00312176 & -0.232609 & -3.14467 & -0.164798 \\ -1.1123 & -2.2442 & -2.25997 & -2.42406 \\ 2.79742 & 3.63227 & 3.61651 & 1.00017 \end{pmatrix}$$

$$K_{55} = \{\{1, 2\}, \{1, 4\}, \{3, 4\}, \{3, 5\}\}$$

$$V_{55} = \begin{pmatrix} 4.52339 & -0.722772 & 0.0496674 & 0.694318 \\ -0.0978316 & 3.89844 & 0.0496679 & 0.694311 \\ 1.44923 & 0.824286 & 5.61886 & 0.694311 \\ -0.520502 & 1.24531 & 0.041752 & 3.14588 \\ -3.65281 & -4.27776 & -5.165 & -4.40773 \\ -6.04059 & 0.824286 & -0.0629615 & 0.694311 \\ 1.44923 & -6.66553 & -0.0629616 & 0.694312 \\ -4.08433 & -4.70927 & -8.79237 & 0.694312 \\ 0.970212 & 0.34527 & -0.0280881 & -7.55513 \\ 6.00401 & 9.23774 & 8.35144 & 4.65111 \end{pmatrix}$$

$$K_{56} = \{\{2\}, \{1, 4\}, \{1, 5\}, \{3, 4\}, \{3, 5\}\}$$

$$V_{56} = \begin{pmatrix} 4.61744 & 3.22058 & 3.64366 & 3.29147 \\ 1.05433 & 3.36582 & -1.49249 & -0.190552 \\ 1.05433 & -1.26381 & 4.18933 & -0.190552 \\ -1.78527 & -1.43225 & -1.28576 & 1.95075 \\ -4.04462 & -6.26689 & -6.48477 & -5.19113 \\ -6.43549 & -1.26381 & -1.49249 & -0.190552 \\ 0.618149 & -8.77566 & -1.46073 & -0.64272 \\ -2.62807 & -1.28048 & -10.1495 & -3.80593 \\ 1.2561 & 6.91234 & 7.58272 & 0.0304978 \\ 6.2931 & 6.78415 & 6.95003 & 4.93872 \end{pmatrix}$$

$$K_{57} = \{\{1, 2\}, \{1, 4\}, \{1, 5\}, \{2, 3\}, \{4, 5\}\}$$

$$V_{57} = \begin{pmatrix} 3.13808 & 1.85018 & -4.04651 & -2.44917 \times 10^{-6} \\ 2.53346 & 6.1377 & 2.296 & -2.44917 \times 10^{-6} \\ -4.36811 & 1.85018 & 2.4683 & -2.44917 \times 10^{-6} \\ 1.16076 & -4.9268 & 1.07026 & 3.56457 \\ -2.40264 & -8.48761 & -2.49326 & -3.56455 \\ -7.31352 & 0.99411 & 2.69724 & -2.44945 \times 10^{-6} \\ -0.575855 & -8.32842 & -0.561446 & -2.44917 \times 10^{-6} \\ 4.21174 & 4.98768 & -5.07551 & -2.45021 \times 10^{-6} \\ -0.575962 & 0.577483 & -0.561542 & -4.76802 \\ 4.19205 & 5.3455 & 4.20647 & 4.76801 \end{pmatrix}$$

$$K_{58} = \{\{1, 2\}, \{1, 3\}, \{1, 5\}, \{2, 4\}, \{3, 4\}\}$$

$$V_{58} = \begin{pmatrix} 3.5022 & 1.47002 & 1.46983 & -2.6401 \\ 0.852699 & 3.00664 & -2.67109 & 0.633358 \\ 0.880116 & -2.60178 & 3.07778 & 0.6634 \\ -2.89983 & 1.47003 & 1.46983 & 3.02322 \\ -1.1225 & -2.99599 & -2.99619 & -1.23784 \\ -4.84921 & 0.0652386 & 0.0650407 & 1.82339 \\ -0.589415 & -5.14788 & 0.799036 & -0.508785 \\ -0.578719 & 0.796129 & -5.15143 & -0.498918 \\ 1.93872 & 0.0652242 & 0.0650262 & -4.18133 \\ 2.86594 & 3.87238 & 3.87218 & 2.92361 \end{pmatrix}$$

$$K_{59} = \{\{1, 2\}, \{1, 3\}, \{1, 4\}, \{1, 5\}, \{2, 3\}, \{4, 5\}\}$$

$$V_{59} = \begin{pmatrix} 6.53836 & -0.244234 & -1.5272 & 1.39552 \\ -1.29963 & 1.86966 & -1.50727 & -1.89163 \\ -3.24425 & -0.244234 & 2.92825 & 1.39552 \\ 3.71387 & -3.25888 & 1.11946 & 1.47486 \\ -1.431 & 0.930726 & -1.83807 & -2.08145 \\ -8.40716 & -0.511858 & 1.58854 & -1.87215 \\ 2.9698 & -5.22393 & 1.96835 & 0.839015 \\ 3.71039 & 3.33459 & -3.59115 & -0.225687 \\ -3.24425 & -0.244234 & -1.5272 & -4.30068 \\ 0.693852 & 3.59239 & 2.38628 & 5.26668 \end{pmatrix}$$

$$K_{60} = \{\{1, 2\}, \{1, 3\}, \{1, 5\}, \{2, 3\}, \{2, 4\}, \{4, 5\}\}$$

$$V_{60} = \begin{pmatrix} 2.76687 & -1.56991 & -1.59768 & -1.7039 \\ 0.115771 & 5.48551 & -1.47226 & 1.52555 \\ 0.115771 & -2.69631 & 2.98318 & 1.52555 \\ -3.45306 & 2.67297 & 1.00468 & 1.70568 \\ 1.92902 & -1.52135 & -1.78313 & -1.95142 \\ -6.74616 & 2.12907 & 1.65297 & 1.028 \\ 1.93032 & -6.94719 & 1.92413 & -1.02972 \\ 2.09037 & 3.48105 & -3.61395 & -1.0312 \\ 0.115771 & -2.69631 & -1.47226 & -4.17066 \\ 1.13533 & 1.66247 & 2.37433 & 4.10213 \end{pmatrix}$$

$$K_{61} = \{\{1, 3\}, \{1, 4\}, \{1, 5\}, \{2, 3\}, \{2, 4\}, \{2, 5\}\}$$

$$V_{61} = \begin{pmatrix} 3.30425 & -2.82403 & 1.47902 & 1.47902 \\ -2.82403 & 3.30425 & 1.47902 & 1.47902 \\ 0.557506 & 0.557506 & 2.51902 & -2.93814 \\ 0.557746 & 0.557746 & -2.93761 & 2.51956 \\ -1.13345 & -1.13345 & -2.92797 & -2.92798 \\ -4.51355 & 1.99155 & 0.19703 & 0.197028 \\ 1.99155 & -4.51355 & 0.19703 & 0.197028 \\ -0.548888 & -0.548888 & -4.84957 & 0.873337 \\ -0.548806 & -0.548806 & 0.873316 & -4.84959 \\ 3.15768 & 3.15768 & 3.97071 & 3.97071 \end{pmatrix}$$

$$K_{62} = \{\{1, 3\}, \{2, 3\}, \{2, 4\}, \{1, 4, 5\}\}$$

$$V_{62} = \begin{pmatrix} 3.10881 & -1.21997 & 1.01319 & 0.156907 \\ -3.30406 & 1.55726 & -0.419368 & 0.218306 \\ 4.67132 & -1.89183 & -0.250115 & 0.169221 \\ 1.80463 & 3.75734 & 2.63626 & 6.8029 \\ -4.44537 & -2.49266 & -3.61374 & -6.58995 \\ -9.24187 & 3.75732 & 2.63623 & -0.339951 \\ 1.80463 & -0.976874 & 2.63626 & -0.339953 \\ -2.21355 & 0.890561 & -2.70107 & -0.0537764 \\ 1.6167 & -6.50387 & -6.42393 & -8.68714 \\ 6.19876 & 3.12271 & 4.48628 & 8.66343 \end{pmatrix}$$

$$K_{63} = \{\{1, 2, 3\}, \{1, 4, 5\}\}$$

$$V_{63} = \begin{pmatrix} 15.463 & 4.62236 & 4.62231 & 0.00101662 \\ 1.61195 & 2.24618 & -1.16918 & 0.00101663 \\ 1.78843 & -1.11594 & 2.29984 & 0.00101663 \\ 1.76065 & 2.88205 & 2.882 & 6.86376 \\ -5.1021 & -3.98069 & -3.98074 & -6.86173 \\ -8.22242 & -2.49721 & -2.49727 & 0.00101663 \\ 1.76065 & -1.71989 & 2.882 & 0.00101663 \\ 1.76065 & 2.88205 & -1.71994 & 0.00101663 \\ -9.30201 & -5.99323 & -5.99329 & -9.05571 \\ -1.51877 & 2.67432 & 2.67427 & 9.04758 \end{pmatrix}$$

$$K_{64} = \{\{1, 2\}, \{1, 5\}, \{2, 3\}, \{2, 4\}, \{3, 4, 5\}\}$$

$$V_{64} = \begin{pmatrix} 2.7316 & 0.63867 & 2.63176 & 2.63176 \\ -1.97703 & 0.948333 & -0.971365 & -0.971365 \\ 1.73745 & 1.21311 & 6.22429 & -1.38441 \\ 1.73745 & 1.21311 & -1.38441 & 6.22429 \\ -4.43564 & -4.4291 & -6.90504 & -6.90504 \\ -2.74289 & 1.21311 & -1.38441 & -1.38441 \\ 3.8203 & 1.13349 & 3.90585 & 3.90585 \\ -3.15744 & -3.37551 & -10.2365 & 0.0181583 \\ -3.15744 & -3.3755 & 0.0181587 & -10.2365 \\ 5.44365 & 4.82028 & 8.10164 & 8.10164 \end{pmatrix}$$

$$K_{65} = \{\{1, 2\}, \{1, 3\}, \{2, 3\}, \{2, 4\}, \{3, 5\}, \{1, 4, 5\}\}$$

$$V_{65} = \begin{pmatrix} 6.43199 & 0.926556 & 1.59102 & -1.54992 \\ -1.04772 & 0.816511 & -2.0002 & -1.18408 \\ 2.63638 & 0.412227 & 2.6326 & 2.26521 \\ -1.90134 & 0.926556 & 1.59102 & 5.59294 \\ -5.95572 & -3.45386 & -3.86735 & -5.74431 \\ -10.8338 & -3.3714 & -3.03167 & -0.241503 \\ 3.33822 & 0.674881 & 3.45806 & 3.35331 \\ -1.90134 & 0.926556 & -2.82759 & -1.54992 \\ 1.73421 & -2.00006 & -2.45312 & -8.12456 \\ 7.49912 & 4.14202 & 4.90723 & 7.18285 \end{pmatrix}$$

$$K_{66} = \{\{2, 4\}, \{1, 2, 3\}, \{1, 4, 5\}\}$$

$$V_{66} = \begin{pmatrix} 2.05723 & 0.505369 & 0.500824 & -0.0692442 \\ 2.01701 & 2.50872 & -1.03712 & 0.126774 \\ 2.017 & -1.04445 & 2.27917 & 0.126774 \\ 1.64502 & 2.75656 & 2.6863 & 6.89289 \\ -4.60498 & -3.49344 & -3.5637 & -6.49997 \\ -8.15787 & -2.27872 & -2.24787 & 0.25268 \\ 1.64502 & -1.97766 & 2.6863 & -0.249966 \\ 1.64502 & 2.75656 & -1.73231 & -0.249966 \\ -7.04858 & -5.05644 & -4.94409 & -8.84593 \\ 8.78513 & 5.32351 & 5.37251 & 8.51596 \end{pmatrix}$$

$$K_{67} = \{\{1, 4\}, \{1, 5\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{67} = \begin{pmatrix} 2.41863 & 3.9645 & 3.9645 & 1.14144 \\ 1.15451 & 6.8216 & -2.961 & 0.424474 \\ 1.15451 & -2.961 & 6.8216 & 0.424474 \\ -1.58452 & -0.787011 & -0.787011 & 1.61105 \\ -3.30089 & -7.41629 & -7.41629 & -4.03084 \\ -2.53341 & -2.961 & -2.961 & 0.424474 \\ -1.79683 & -9.8688 & 2.48592 & -1.64984 \\ -1.79683 & 2.48592 & -9.8688 & -1.64984 \\ 3.09477 & 5.16738 & 5.16738 & 1.50592 \\ 3.19008 & 5.5547 & 5.5547 & 1.79869 \end{pmatrix}$$

$$K_{68} = \{\{1, 2\}, \{1, 5\}, \{2, 5\}, \{1, 3, 4\}, \{2, 3, 4\}\}$$

$$V_{68} = \begin{pmatrix} 3.54697 & 1.20621 & -1.31034 & -1.31034 \\ 2.18632 & 4.67057 & 0.848902 & 0.848902 \\ -1.01312 & -0.648172 & 3.32715 & -2.59309 \\ -1.01312 & -0.648172 & -2.59309 & 3.32715 \\ -1.90742 & -2.11099 & -0.0431866 & -0.0431866 \\ -3.38948 & -2.14761 & 0.848902 & 0.848902 \\ -2.93924 & -3.0106 & 0.138739 & 0.138739 \\ 1.35677 & 0.0712558 & -3.81612 & 2.38233 \\ 1.35677 & 0.0712558 & 2.38233 & -3.81612 \\ 1.81557 & 2.54625 & 0.216717 & 0.216717 \end{pmatrix}$$

$$K_{69} = \{\{2, 3\}, \{2, 4\}, \{1, 2, 5\}, \{1, 3, 4\}\}$$

$$V_{69} = \begin{pmatrix} 5.27355 & 0.115743 & -0.271036 & -0.271036 \\ 1.85387 & 5.78463 & 1.24389 & 1.24389 \\ -1.82401 & 0.712178 & 3.53194 & -1.94024 \\ -1.82401 & 0.712178 & -1.94024 & 3.53194 \\ -1.38312 & -3.67598 & -1.49183 & -1.49183 \\ -4.30792 & -0.0956762 & 0.265342 & 0.265342 \\ -2.04438 & -5.64568 & -2.06111 & -2.06111 \\ 1.39016 & -0.902704 & -3.15928 & 2.56565 \\ 1.39016 & -0.902704 & 2.56565 & -3.15928 \\ 1.47571 & 3.89802 & 1.31667 & 1.31667 \end{pmatrix}$$

$$K_{70} = \{\{1, 2, 3\}, \{1, 2, 5\}, \{1, 3, 4\}\}$$

$$V_{70} = \begin{pmatrix} 6.53498 & -2.31362 & 0.184779 & -1.33387 \\ -6.18929 & 7.10243 & 0.0858552 & -0.915703 \\ 1.3527 & 2.32841 & 4.10964 & 1.47404 \\ 1.80072 & -4.25372 & 0.479238 & 1.71318 \\ -1.58847 & -0.61277 & -3.2433 & -1.46714 \\ -2.42997 & 0.781925 & -0.0676506 & 0.466376 \\ 1.3527 & -4.69872 & -0.302122 & 1.47404 \\ -2.25366 & -1.49193 & -3.37397 & -0.846448 \\ 1.3527 & 2.32841 & -0.302122 & -2.03952 \\ 0.0675916 & 0.82959 & 2.42965 & 1.47505 \end{pmatrix}$$

$$K_{71} = \{\{1, 2\}, \{2, 4\}, \{2, 5\}, \{1, 3, 4\}, \{1, 3, 5\}\}$$

$$V_{71} = \begin{pmatrix} 7.75839 & 1.23007 & -2.38325 & 0.646375 \\ 3.68491 & 2.29637 & 3.05548 & 0.608994 \\ -2.9559 & 1.23007 & 6.44028 & 0.646375 \\ -0.388933 & -1.52084 & -0.58637 & 1.80362 \\ -7.36765 & -3.18169 & -6.795 & -3.76538 \\ -11.8383 & -2.04082 & 0.952331 & -2.59092 \\ -2.9559 & -2.46299 & -2.38325 & 0.646375 \\ 3.85682 & -1.53086 & -7.87445 & -0.766789 \\ 4.33393 & 2.82552 & 4.12859 & 0.819101 \\ 5.87268 & 3.15518 & 5.44563 & 1.95224 \end{pmatrix}$$

$$K_{72} = \{\{2, 3\}, \{2, 5\}, \{3, 4\}, \{1, 2, 4\}, \{1, 3, 5\}\}$$

$$V_{72} = \begin{pmatrix} 3.12419 & -3.00265 & 0.0382637 & -0.856927 \\ -1.8416 & 18.354 & 0.0804393 & -1.83258 \\ 0.924718 & 0.867377 & 4.33464 & 0.227641 \\ 0.194651 & -2.86565 & 0.0345334 & 3.19711 \\ -3.08372 & -2.01602 & -4.01834 & -3.46549 \\ -3.57321 & -1.49373 & 0.0174578 & -0.414399 \\ 0.743624 & -9.37321 & -0.190993 & 4.47781 \\ -1.26933 & -5.51736 & -4.4445 & -1.54207 \\ 0.881753 & 4.57562 & -0.0528636 & -2.91918 \\ 3.89892 & 0.471622 & 4.20136 & 3.12809 \end{pmatrix}$$

$$K_{73} = \{\{1, 2, 5\}, \{1, 3, 4\}, \{2, 3, 4\}\}$$

$$V_{73} = \begin{pmatrix} 6.27959 & -3.34165 & -0.118104 & -1.39566 \\ -3.34165 & 6.27959 & -0.118105 & -1.39566 \\ -1.61432 & -1.61432 & 1.23324 & 2.4069 \\ -1.84221 & -1.84221 & 1.09037 & 2.48978 \\ 0.335365 & 0.335365 & -2.31088 & -1.98022 \\ -4.43176 & 3.21998 & 0.573736 & 0.904399 \\ 3.21998 & -4.43176 & 0.573736 & 0.904399 \\ -0.620062 & -0.620062 & -2.4909 & -1.23644 \\ 3.21989 & 3.21989 & 0.573669 & -2.58053 \\ -1.20482 & -1.20482 & 0.993229 & 1.88302 \end{pmatrix}$$

$$K_{74} = \{\{1, 2\}, \{1, 3, 5\}, \{2, 3, 4\}, \{3, 4, 5\}\}$$

$$V_{74} = \begin{pmatrix} 3.98116 & -0.0365937 & -2.59771 & -2.37956 \\ 2.07561 & 3.38622 & 0.840754 & 2.26998 \\ -1.70881 & -0.0231103 & 4.4024 & -1.89222 \\ -3.73029 & -0.0828534 & 1.42683 & 2.83266 \\ -1.49582 & -3.51854 & -2.73067 & -1.30145 \\ -2.6393 & 0.0528874 & 0.840754 & 2.26998 \\ -0.784827 & -2.49431 & -2.30204 & -0.873961 \\ 0.344936 & 0.00233965 & -1.08562 & 0.400462 \\ 2.07561 & 0.0528874 & 0.840754 & -3.11849 \\ 1.88175 & 2.66107 & 0.364539 & 1.79261 \end{pmatrix}$$

$$K_{75} = \{\{1, 2, 4\}, \{1, 2, 5\}, \{1, 3, 4\}, \{1, 3, 5\}\}$$

$$V_{75} = \begin{pmatrix} 3.80987 & -1.66318 & -1.66318 & 1.02631 \times 10^{-10} \\ 1.14199 & 2.7941 & -3.82758 & 5.77349 \times 10^{-11} \\ 1.14199 & -3.82758 & 2.7941 & 5.77349 \times 10^{-11} \\ 0.417469 & 2.33021 & 2.33021 & 3.43137 \\ -3.0139 & -1.10116 & -1.10116 & -3.43137 \\ -1.75665 & 0.699056 & 0.699056 & 7.0226 \times 10^{-11} \\ 0.417469 & -2.7869 & 2.33021 & 1.02631 \times 10^{-10} \\ 0.417469 & 2.33021 & -2.7869 & 1.02631 \times 10^{-10} \\ -2.55352 & -0.65305 & -0.65305 & -2.53133 \\ -0.0221843 & 1.87828 & 1.87828 & 2.53133 \end{pmatrix}$$

$$K_{76} = \{\{1, 4\}, \{1, 2, 3\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{76} = \begin{pmatrix} 8.05569 & 5.8625 & 7.02588 & 2.36828 \\ -1.01562 & 1.51091 & -2.75299 & -2.37072 \\ -1.01719 & -2.25394 & 3.38561 & -2.37029 \\ -1.01589 & -2.25278 & -2.75329 & 4.62936 \\ -6.31504 & -4.53033 & -4.15965 & -3.46192 \\ -3.74999 & -2.25278 & -2.75329 & -2.37064 \\ 0.219667 & -1.66519 & 1.41113 & 2.03084 \\ 0.194424 & 1.18448 & -3.44099 & 1.94091 \\ 0.194046 & 1.18386 & 1.3253 & -3.49397 \\ 4.44991 & 3.21328 & 2.71229 & 3.09814 \end{pmatrix}$$

$$K_{77} = \{\{1, 2, 5\}, \{1, 3, 4\}, \{1, 3, 5\}, \{2, 3, 4\}\}$$

$$V_{77} = \begin{pmatrix} 4.90017 & -3.4925 & -1.56563 & -0.718425 \\ -2.91935 & 5.06346 & -2.49859 & 0.119026 \\ -2.50277 & -2.15321 & 4.74316 & 0.439894 \\ 1.46318 & 1.28673 & 1.67951 & 3.49089 \\ -0.597304 & -0.847417 & -1.55265 & -2.5633 \\ -3.46645 & 1.85529 & 1.15005 & 0.139401 \\ 2.1054 & -2.85935 & 1.15005 & 0.139401 \\ 1.00283 & 0.879183 & -2.62996 & -0.688909 \\ -0.621387 & -0.516652 & -1.22189 & -2.02366 \\ 0.635682 & 0.784461 & 0.745945 & 1.66568 \end{pmatrix}$$

$$K_{78} = \{\{1, 2, 3\}, \{1, 4, 5\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{78} = \begin{pmatrix} 4.75462 & 1.19394 & 1.43971 & -1.24675 \times 10^{-9} \\ 1.25619 & 4.95566 & 1.43966 & -1.24675 \times 10^{-9} \\ -2.98751 & -3.17445 & 2.03229 & -1.24675 \times 10^{-9} \\ 1.48083 & 1.42518 & 1.73049 & 7. \\ -5.51917 & -5.57482 & -5.26951 & -7. \\ -1.25325 & 1.42516 & 1.73047 & -1.24675 \times 10^{-9} \\ 1.48081 & -1.51469 & 1.73051 & -1.24676 \times 10^{-9} \\ 0.988753 & 1.82884 & -2.60421 & -1.37461 \times 10^{-9} \\ -2.81137 & -2.99314 & -3.82543 & -5.42146 \\ 2.61009 & 2.42832 & 1.59603 & 5.42146 \end{pmatrix}$$

$$K_{79} = \{\{1, 5\}, \{1, 2, 3\}, \{1, 3, 4\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{79} = \begin{pmatrix} 5.24966 & 1.28012 & 2.15699 & 0.957892 \\ 1.75149 & 5.04188 & 2.15732 & 0.958388 \\ -2.49227 & -3.08823 & 2.74986 & 0.958271 \\ -1.08482 & 1.25729 & -1.33242 & 2.55668 \\ -5.02384 & -5.48861 & -4.55188 & -6.04161 \\ -0.75794 & 1.51139 & 2.44812 & 0.958388 \\ 1.97589 & -1.42852 & 2.4478 & 0.957931 \\ 1.97616 & 1.51139 & -2.34854 & 0.958388 \\ -2.31606 & -2.90691 & -3.10778 & -4.46307 \\ 0.721726 & 2.31022 & -0.619476 & 2.19874 \end{pmatrix}$$

$$K_{80} = \{\{1, 2, 3\}, \{1, 2, 5\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 4\}\}$$

$$V_{80} = \begin{pmatrix} 1.91971 & -1.21675 & -2.08559 & -4.12788 \\ -1.04416 & 3.96513 & 1.04384 & -0.998434 \\ -1.38207 & -1.74658 & 6.4974 & -1.30485 \\ 5.7633 & 6.214 & -2.75012 & 11.3995 \\ -4.10538 & -4.86532 & -2.01738 & -4.05966 \\ -4.35419 & -1.8041 & 1.04384 & -0.998434 \\ -2.32752 & -4.49593 & -0.119932 & -2.16221 \\ 2.50906 & 2.1437 & -3.67977 & 2.3107 \\ -1.04416 & -1.8041 & 1.04384 & -3.92654 \\ 4.0654 & 3.60995 & 1.02387 & 3.86783 \end{pmatrix}$$

$$K_{81} = \{\{1, 2, 3\}, \{1, 2, 4\}, \{1, 3, 4\}, \{1, 4, 5\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{81} = \begin{pmatrix} 4.538 & 3.64202 & -1.68024 & 3.46109 \\ -0.0101553 & 6.54456 & -0.660424 & -0.373096 \\ 1.78576 & -3.29008 & 7.99616 & -2.47115 \\ -0.104277 & -0.380675 & -0.0817011 & 3.38397 \\ -3.74282 & -3.76067 & -3.68365 & -3.5548 \\ -3.25535 & -0.380675 & -0.0817011 & -0.151382 \\ -1.14337 & -1.5046 & -0.864439 & 1.12396 \\ -0.0690754 & -0.265141 & -3.03498 & -0.234303 \\ 0.641433 & -1.6882 & 0.708542 & -2.49705 \\ 1.35986 & 1.08346 & 1.38244 & 1.31275 \end{pmatrix}$$

$$K_{82} = \{\{1, 2, 3\}, \{1, 2, 4\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 4\}, \{2, 3, 5\}\}$$

$$V_{82} = \begin{pmatrix} 1.33814 & 0.680219 & -5.51214 & -3.30264 \\ 1.67103 & 3.97754 & 9.42582 & 6.38696 \\ 4.2464 & -0.769132 & 10.3942 & 2.39947 \\ -0.197728 & -0.146679 & -0.262255 & 3.48298 \\ -4.23701 & -2.73538 & -7.7147 & -6.20936 \\ -3.11819 & -0.178979 & -0.0571858 & 0.0776596 \\ -2.26792 & -2.56883 & -2.10314 & -1.19017 \\ -0.420072 & 0.46524 & -5.42763 & -1.6669 \\ -0.250394 & 0.223915 & -1.69705 & -2.48202 \\ 3.23574 & 1.05208 & 2.9541 & 2.50402 \end{pmatrix}$$

$$K_{83} = \{\{1, 2, 3\}, \{1, 2, 4\}, \{1, 3, 4\}, \{1, 3, 5\}, \{1, 4, 5\}, \{2, 3, 5\}, \{2, 4, 5\}\}$$

$$V_{83} = \begin{pmatrix} 4.37011 & 0.316906 & -0.737726 & -0.737726 \\ -0.227253 & 17.2137 & 3.13188 & 3.13188 \\ 0.0275926 & -1.54293 & 3.10153 & -0.89637 \\ 0.0275969 & -1.54314 & -0.896455 & 3.10144 \\ -3.99587 & -6.08621 & -4.45472 & -4.45472 \\ -1.69574 & 7.94506 & 2.87431 & 2.87431 \\ 0.0132233 & -18.378 & -0.605256 & -0.605256 \\ 0.0266786 & 0.969054 & -2.22004 & -0.814359 \\ 0.0266319 & 0.962872 & -0.813633 & -2.21931 \\ 1.42704 & 0.142674 & 0.620115 & 0.620115 \end{pmatrix}$$

$$K_{84} = \{\{1, 2, 4\}, \{1, 3, 5\}, \{2, 3, 4, 5\}\}$$

$$V_{84} = \begin{pmatrix} 2.3145 & -0.375287 & -0.22433 & -0.866731 \\ -0.01013 & 3.71532 & 0.438882 & -0.425732 \\ 0.821493 & 1.45102 & 7.62075 & 1.1855 \\ -0.321822 & -0.375283 & -0.224352 & 6.64428 \\ -5.88663 & -5.8865 & -7.29344 & -5.13887 \\ 0.121394 & 1.66067 & 0.253725 & 2.4083 \\ 1.2517 & -0.810418 & -0.478055 & 1.81247 \\ -1.90724 & -2.63375 & -4.47217 & -3.64389 \\ 1.66054 & 1.66067 & 0.253725 & -1.97682 \\ 1.95619 & 1.59355 & 4.12526 & 0.00149225 \end{pmatrix}$$

$$K_{85} = \{\{1, 3\}, \{2, 4\}, \{2, 5\}, \{4, 5\}\}$$

$$V_{85} = \begin{pmatrix} 5.18382 & 1.94369 & 1.92657 & 2.43998 \times 10^{-11} \\ 1.27644 & 7.45205 & 2.58218 & 2.44094 \times 10^{-11} \\ -1.97177 & -6.40511 & -2.54104 & 5.56768 \times 10^{-11} \\ -0.52224 & -0.0621233 & 0.700633 & 5.01147 \\ -5.53371 & -5.07359 & -4.31083 & -5.01147 \\ -5.83261 & 1.89903 & 2.58471 & 2.44 \times 10^{-11} \\ -6.77818 & -11.5815 & -5.8146 & 4.60742 \times 10^{-11} \\ 6.14534 & 7.20582 & -0.0890053 & 1.49271 \times 10^{-12} \\ 0.121949 & -1.58364 & -1.41382 & -7.78901 \\ 7.91096 & 6.20537 & 6.37519 & 7.78901 \end{pmatrix}$$

$$K_{86} = \{\{1, 2\}, \{1, 4\}, \{2, 5\}, \{3, 4\}, \{3, 5\}\}$$

$$V_{86} = \begin{pmatrix} 2.79655 & -1.24988 & -1.82606 & -0.64083 \\ -1.82466 & 3.37133 & -1.82604 & -0.640827 \\ -0.277611 & 0.297176 & 3.74313 & -0.640838 \\ -2.24734 & 0.718203 & -1.83398 & 1.81073 \\ 1.26624 & -2.75884 & 0.178799 & -0.640843 \\ -7.76742 & 0.29718 & -1.93868 & -0.64083 \\ -0.277611 & -7.19264 & -1.93869 & -0.640837 \\ -5.81116 & -5.23638 & -10.6681 & -0.640831 \\ 9.86584 & 3.04322 & 9.63389 & -0.640848 \\ 4.27717 & 8.71063 & 6.47571 & 3.31596 \end{pmatrix}$$

$$K_{87} = \{\{2, 4\}, \{3, 5\}, \{1, 2, 3\}, \{1, 4, 5\}\}$$

$$V_{87} = \begin{pmatrix} 6.66835 & 0.985478 & 1.65518 & -1.56904 \\ -1.1477 & 0.791233 & -2.02654 & -1.1752 \\ 2.40349 & 0.354415 & 2.56848 & 2.28307 \\ -1.66497 & 0.985483 & 1.65518 & 5.57381 \\ -5.71934 & -3.39493 & -3.80319 & -5.76343 \\ -10.5974 & -3.31247 & -2.96751 & -0.260625 \\ 3.5746 & 0.733807 & 3.52222 & 3.33419 \\ -1.66497 & 0.985483 & -2.76342 & -1.56904 \\ 1.26509 & -2.11481 & -2.57777 & -8.07934 \\ 6.88287 & 3.98631 & 4.73736 & 7.22561 \end{pmatrix}$$

$$K_{88} = \{\{1, 2, 3\}, \{1, 2, 4\}, \{1, 3, 5\}, \{2, 4, 5\}, \{3, 4, 5\}\}$$

$$V_{88} = \begin{pmatrix} 12.9471 & 7.47662 & 2.25731 & 7.89902 \\ 1.31595 & 3.8722 & 0.431884 & -0.307133 \\ -1.90474 & -2.55231 & 3.44576 & -0.54223 \\ -9.80027 & -7.4408 & 0.0935791 & -3.87363 \\ -4.39084 & -3.00095 & -5.06468 & -3.71991 \\ -1.41737 & 0.410584 & 1.58426 & -1.2098 \\ 2.31263 & 0.313949 & 1.82886 & 2.33793 \\ 6.00918 & 3.72463 & -2.65949 & 2.75793 \\ -0.98999 & 0.31267 & -2.56208 & -2.14594 \\ -4.08164 & -3.11658 & 0.644612 & -1.19623 \end{pmatrix}$$