```
In[25]:= A[{a_, b_, c_, d_, e_, f_, g_, h_, i_, j_, k_, l_}] :=
         {{d, d h, d h i, 0}, {b d, b d h + e, b d h i + e g + e i, 0},
          {a b d, a b d h + a e + c e, a b d h i + e (a + c) (g + i) + f, f k}, {0, 0, j f, l + j f k}};
      B[{a_, b_, c_, d_, e_, f_, g_, h_, i_, j_, k_, l_}] :=
         A[Abs /@ {a, b, c, d, e, f, g, h, i, j, k, l}];
      dist[li_] := Log[li[[1]]]^2 + Log[li[[2]]]^2 + Log[li[[3]]]^2;

      For[m = 1, m ≤ 800, m++,
       {a, b, c, d, e, f, g, h, i, j, k, l} = RandomComplex[{-2 - 2 I, 2 + 2 I}, 12];
       Ar = A[{a, b, c, d, e, f, g, h, i, j, k, l}];
       Br = B[{a, b, c, d, e, f, g, h, i, j, k, l}];
       EvA = Abs /@ Eigenvalues[Ar];
       EvB = Eigenvalues[Br];
       dA = dist[EvA];
       dB = dist[EvB];

       If[dA > dB, Print[dA, "   ", EvA, "   ", dB, "   ", EvB]]

      ]

      9.04123  {5.73847, 5.17033, 0.163059, 0.155607}
         7.97089  {8.74852, 5.38817, 0.518948, 0.0307742}

      13.0618  {11.3322, 7.45762, 0.17041, 0.0414635}
         12.3491  {14.4603, 7.90713, 0.379837, 0.0137493}

      15.5665  {18.1084, 6.68548, 0.151246, 0.0997936}
         15.5612  {27.5422, 7.07308, 0.423036, 0.0221725}

      9.71877  {12.5155, 0.923515, 0.161384, 0.033513}
         9.14981  {16.283, 1.27896, 0.319134, 0.00940597}

      18.7718  {31.3843, 6.59753, 0.161019, 0.0474107}
         18.5238  {39.1697, 8.32777, 0.46768, 0.0103614}

      5.14483  {4.6768, 1.29528, 0.193471, 0.0409979}
         3.98181  {6.14089, 1.3047, 0.455909, 0.0131544}
```