General considerations

When the search space is intractable because of size, we don't define a strategy explicitly (ilel, by listing all possible (stat, action) pairs). Instead, we define the strategy as a set of *rules*. A rule is a way to group states into clusters, where the states in a given cluster have features (in common) that suggest similar decisions (moves).

A first tentative set of rules for our automated Twixt learner

1) $f_1(P) = Tl_b(P) / s^2$

   where:

   - P is a player;
   - $Tl_b(P)$ = total length of bridges owned by P;
   - s = side of board.

2) $f_2(P1) = f1(P1) - f1(P2)$

3) $f3(P) = Lcp$

   where:

   - Lcp = longest connected path for player P.

4) $f_4(P) = Tdv/s$

   where Tlv is the total length covered by the projections of the bridges of player P in the direction of the sides of the board owned by P's opponent.

5) $f_5(P) = Tdh/s$

   where Tdh is the total length covered by the projections of the bridges of player P in the direction of the sides of the board owned by P.

6) $f_6(P) = 1/f_4(P)$

7) $f_7(P) = 1/f_5(P)$

8) $f_8(P) = Ncm(P)/Ncn(P)$

   where:

   - $Ncm(P)$ = number of available connecting moves (i.e., sum over all nodes owned by P of the number of nodes that could be connected to the current one in one move. Do not count the moves that are blocked.
   - $Ncn(P)$ = number of connected nodes owned by P.