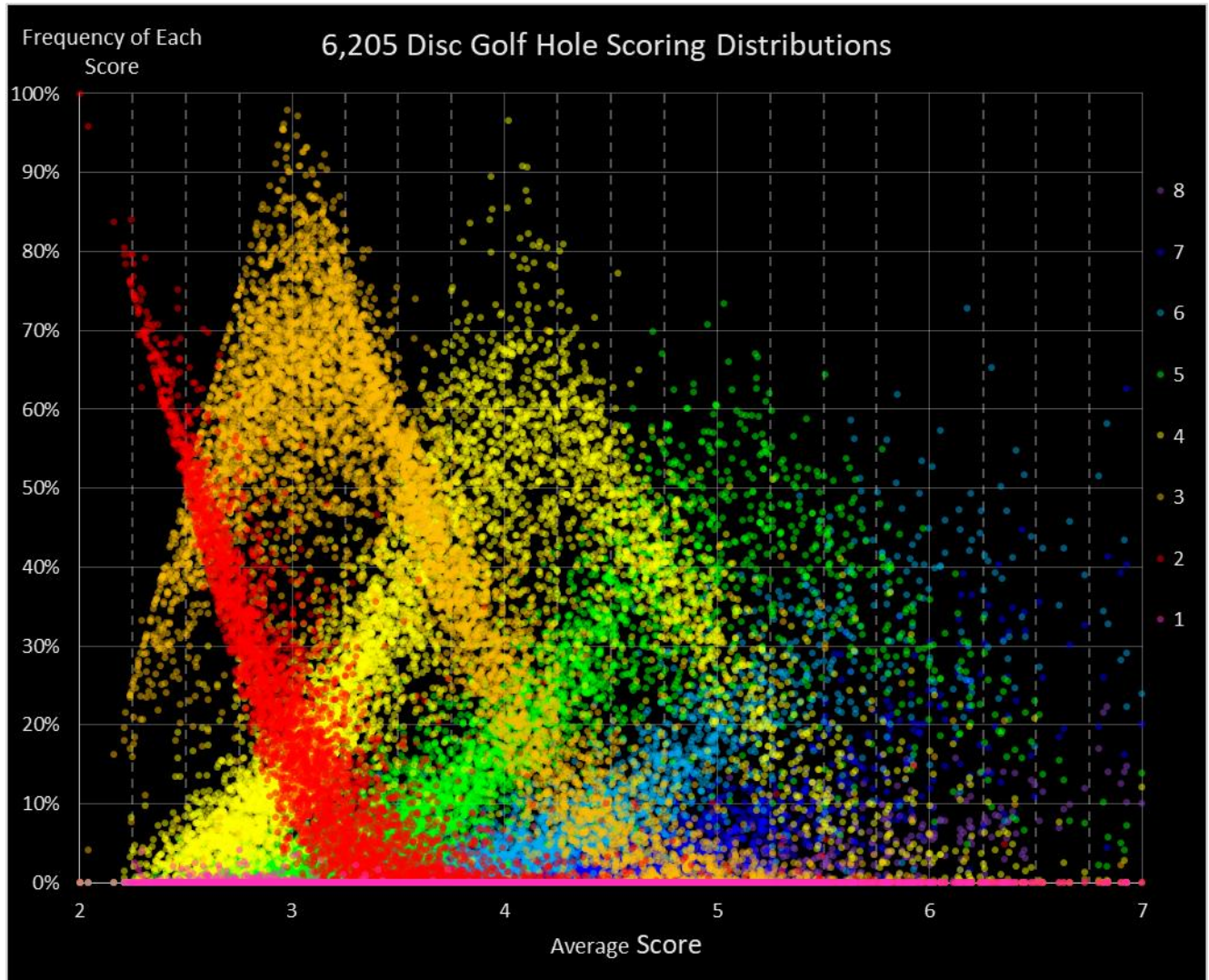**Graphing Disc Golf Scoring Data**, by Steve West Disc Golf, LLC, January 11, 2018

The proliferation of hole by hole scores in disc golf allows for some interesting graphical explorations.

This shows the frequency of each score (1=pink, 2=red, 3=orange, etc.) as a function of the average score. For example, for some holes that average 3.0 almost everyone scored a 3. On the other hand, some holes that average near 3.0 have as few as 8.5% of players getting 3s, with many 2s and 4s, and some 5s.

As expected, the frequency of any particular score reaches a maximum when the average score is near that score. However, as average scores get higher than 3, the peaks are lower and the chance of getting any particular score gets more unpredictable.

This includes scoring distributions or ratings of 800, 850, 900, 950, and 1000. These are all lumped together because a scoring distribution for a particular average score at one rating acts similarly to a scoring distribution for a different hole and rating that has the same average score.

Scoring Spread

6,205 Disc Golf Hole Scoring Distributions
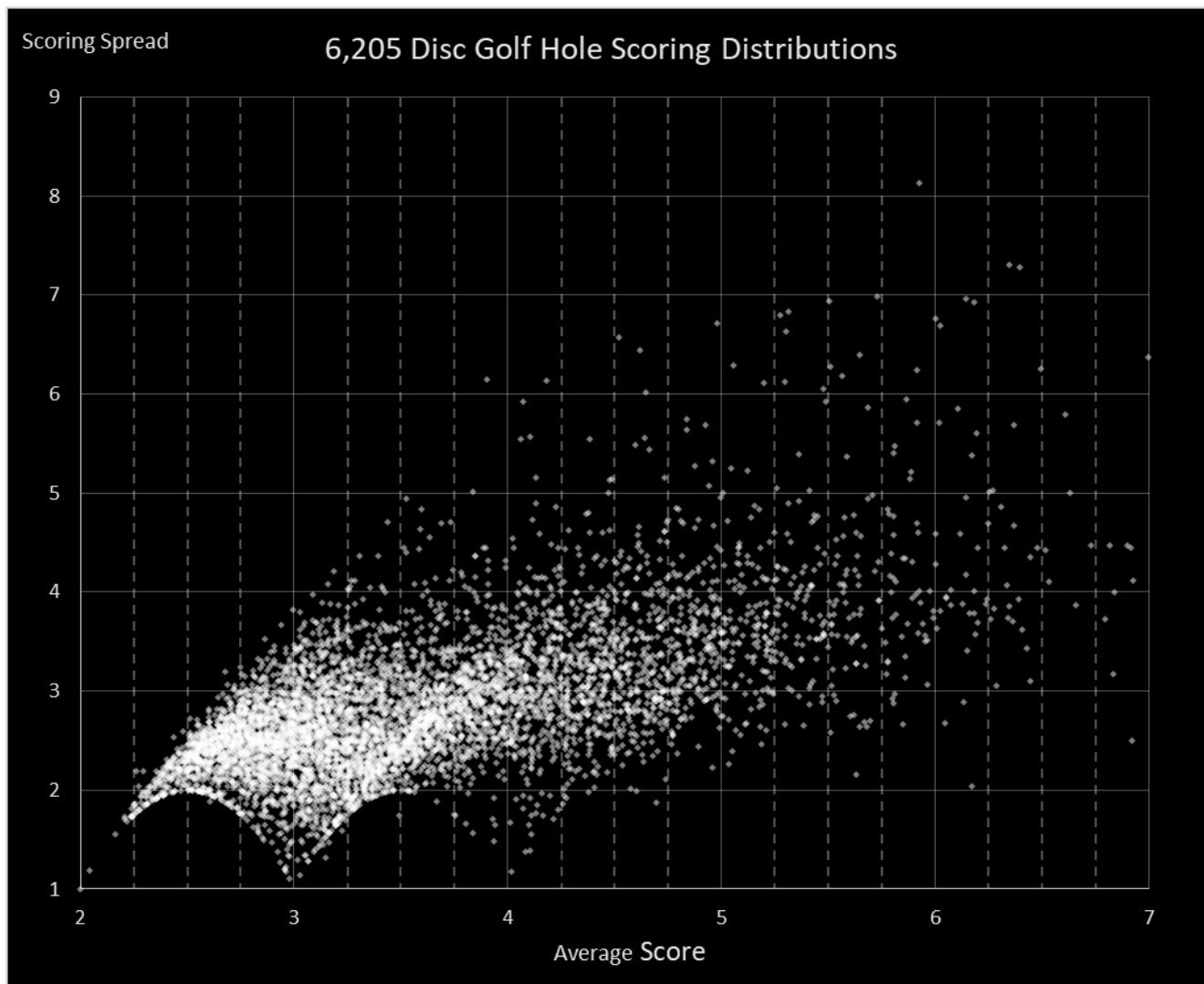
Average Score

This shows the scoring spread width, which can be thought of as the number of different scores a hole hands out. For example, that hole where almost everyone got a 3 gave out only 3s, so the scoring spread width is just one. Another hole that averaged about 3 had a scoring spread width of nearly 4.

For holes where the average score is something-and-half, the minimum scoring spread width possible is 2, because the half needs to come from 50% lower score and 50% higher score. The potential for very narrow scoring spreads is a reason to avoid holes that have an average score near an integer. However, it is quite possible for holes that have an average near an integer to have adequate scoring spread. Also, for holes that average around 4 and up, other factors make it rare for a hole to have a very narrow scoring spread.

In general, each additional throw in the average score adds about one half to the scoring spread width.

6,205 Disc Golf Hole Scoring Distributions
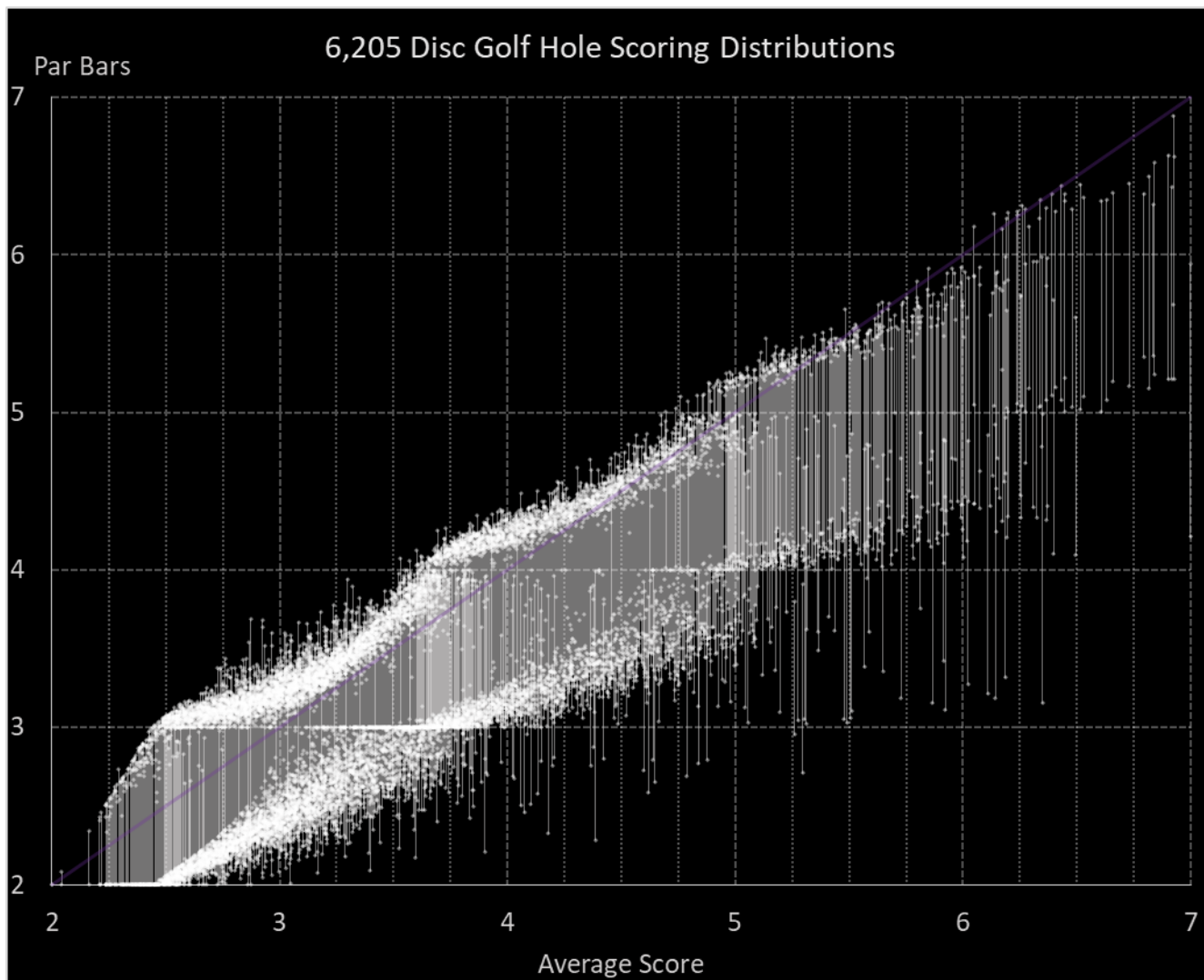
This graph shows what the par of each hole would be, based on my "errorless par" method. Wherever the vertical bar crosses an integer, that's par. A par 3 hole could have an average score anywhere from 2.42 to 5.29, but the vast majority of par 3 holes have an average score from about 2.5 to 3.75.

Of course par generally gets larger as average score goes up, but the relationship is not perfectly linear because holes have varying degrees of punishment for errors. These are the holes whose par bars hang down farther than other holes of that average size. For these holes lower scores are possible, even common, but the few very high scores bring the average score up.

Examine the area from an average score of 4.75 and up. There seem to be two populations of holes. For holes with average scores that high, a lot of them get those high scores by punishing errors severely.

There are far fewer holes where the par is unusually high relative to average score. Not many holes overly reward good throws.