## New and Improved Power Ranking (NIPR)

Nipr $=\{$ all cats $\} ;$ Bopper $=\{r u n, h r, r b i, t b\} ;$ Pitchin $=\{w, s v, k, e r a, w h i p\}$

| Team | NIPR | $\begin{array}{c}\text { NIPR } \\ \text { Rank }\end{array}$ |  | BOPPER | $\begin{array}{c}\text { BOPPER } \\ \text { Rank }\end{array}$ | PITCHIN |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: | \(\left.\begin{array}{c}PITCHIN <br>

Rank\end{array}\right]\)

## NIPR for Special Category Areas

NIPR-1 $=\{$ all cats except your worst $\} ; P Q U A L=\{$ era, whip $\} ; P Q U A N=\{$ win,sv, $k\}$

| Team | NIPR-1 | NIPR-1 Rank | PQUAL | PQUAL Rank | PQUAN | PQUAN Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bay City Brawlers | -25 | 12 | -109 | 12 | -137 | 14 |
| Boston Poindexters | 59 | 2 | 195 | 1 | -4 | 9 |
| CRYOGENIC TEDS | 32 | 6 | -15 | 8 | 13 | 7 |
| KGG Baseball 2019 | 4 | 9 | 36 | 6 | 7 | 8 |
| Killer Maltese | 45 | 4 | 49 | 5 | -5 | 10 |
| Killer Rabbits | -6 | 11 | -37 | 10 | -35 | 12 |
| Naperville Meerkats | 63 | 1 | -121 | 13 | 26 | 6 |
| Notorious BE AR D | 16 | 7 | 51 | 4 | -7 | 11 |
| Plano Tiburon | 6 | 8 | 1 | 7 | 37 | 4 |
| PTBNL | -30 | 13 | -131 | 14 | 80 | 1 |
| RBI's all day | -55 | 14 | -38 | 11 | 39 | 2 |
| SATX Elephants | 4 | 10 | 54 | 3 | 35 | 5 |
| Southern Rockets | 51 | 3 | 100 | 2 | -83 | 13 |
| Vatican City Popes | 44 | 5 | -35 | 9 | 37 | 3 |

## NIPR Category Data

Category $Z$-score * 100. Average is 0 . One stdev better than average is 100 . And 1 stdev worse is -100

| Team | Run | Hr | Rbi | Sb | Tb | w | Sv | K | Era | Whip | NIPR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bay City Brawlers | 166 | 61 | 13 | -70 | 14 | -200 | 10 | -222 | -10 | -209 | -45 |
| Boston Poindexters | 82 | -26 | -58 | 99 | -41 | 45 | -97 | 41 | 212 | 178 | 43 |
| CRYOGENIC TEDS | 34 | 83 | 74 | -108 | 90 | 111 | -44 | -30 | 29 | -60 | 18 |
| KGG Baseball 2019 | -62 | 17 | -30 | 7 | -52 | 22 | -4 | 2 | 65 | 8 | -3 |
| Killer Maltese | 38 | 122 | 46 | -146 | 114 | -89 | 169 | -96 | 9 | 88 | 26 |
| Killer Rabbits | -2 | -83 | 0 | 107 | 1 | -22 | -4 | -79 | -104 | 29 | -16 |
| Naperville Meerkats | 102 | 153 | 216 | -62 | 137 | 145 | -190 | 122 | -166 | -77 | 38 |
| Notorious BE AR D | -6 | 39 | 16 | -123 | 13 | 22 | -70 | 27 | 59 | 44 | 2 |
| Plano Tiburon | -135 | -26 | -20 | -16 | 4 | -45 | 96 | 58 | -49 | 51 | -8 |
| PTBNL | -127 | -109 | -129 | 115 | -138 | -45 | 183 | 102 | -144 | -118 | -41 |
| RBI's all day | -179 | -135 | -155 | -70 | -187 | 134 | -70 | 53 | -45 | -31 | -68 |
| SATX Elephants | -18 | -140 | -132 | 99 | -128 | 22 | -10 | 92 | 48 | 59 | -11 |
| Southern Rockets | 110 | -79 | 89 | 153 | 87 | -145 | 30 | -134 | 102 | 98 | 31 |
| Vatican City Popes | -2 | 122 | 69 | 15 | 87 | 45 | 3 | 63 | -7 | -62 | 33 |

## NIPR Explanation

May 2013
The goal of the NIPR is to give a statistical measure of a team's performance, independent of head-to-head weekly competition. The NIPR measures a team's statistical performance in each category (cat) over the whole season.

For each cat, the NIPR is a team's Z-score for that cat times 100 . I multiply by 100 , so that the NIPR is a whole number. The Z-score is the number of standard deviations either better or worse than average for a cat. An average performance gives a NIPR of 0 , no better or worse than average.

Example: Assume the league average is 9 homers per week and the stdev is 1
If Team $Z$ averages 9 homers per week, their NIPR is 0 .
If team X averages 10 homers per week, then their NIPR for homers is 100.
If Team Y averages 11 homers per week, their NIPR is 200
If Team DOP averages 8 homers per week, their NIPR is -100 .
Other NIPR scores are simply the averages over multiple categories:
NIPR = average(all cats)
NIPR-1 = average( all cats except team's worst)
BOPPER = average(run,hr,rbi,tb)
PQUAN=average(win,k)
PQUAL=average(era,whip)

