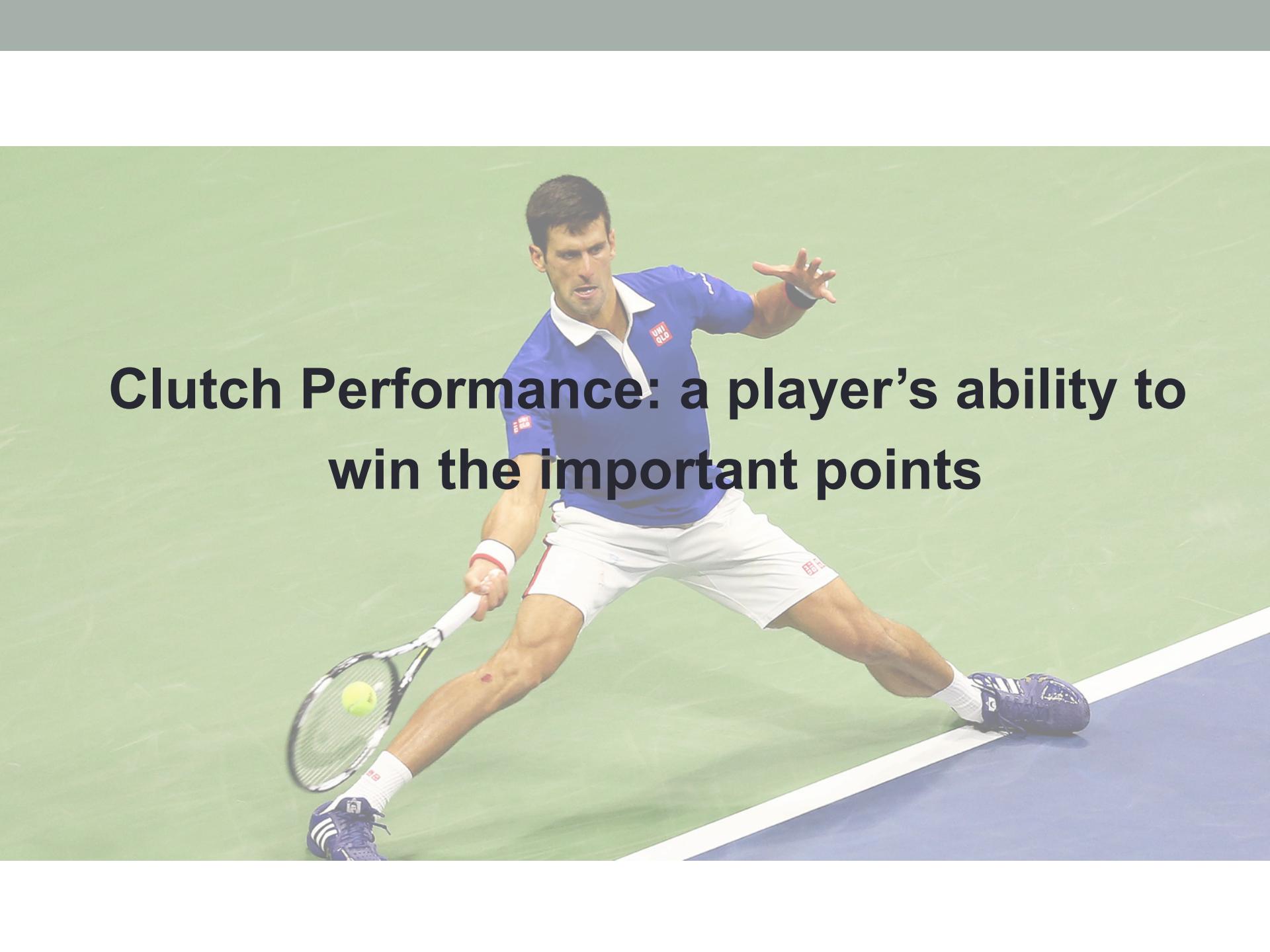


Analysis of Clutch Performance in Men's Professional Tennis

Kevin Haugh



**Clutch Performance: a player's ability to
win the important points**

Methods

1. Assign every point a value of importance
2. Evaluate players based their performance on important points



Point Importance

Point importance =

$$\begin{aligned} & P(\text{Player wins match} \mid \text{Player wins point}) \\ & - P(\text{Player wins match}) \end{aligned}$$

Serve Importance

Most important

22;66;A-	22;66;02	11;66;A-	00;66;A-	01;66;A-
0.4821521	0.3617379	0.2965386	0.2946851	0.2860739

Least important

21;05;40	20;50;41	02;05;40
0.000010896926	0.000010382747	0.000008573605

Player Evaluations

Top 10 Clutch Servers

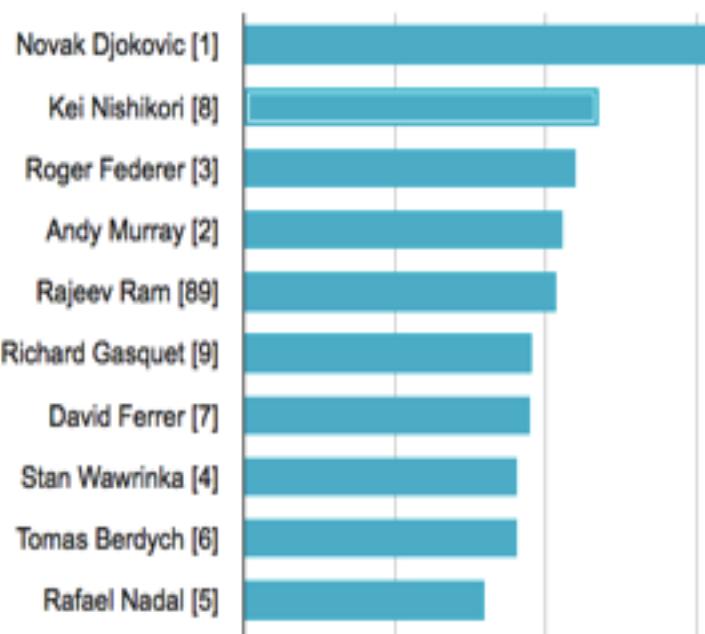
Rank	Player	Beta
1	Novak Djokovic	1.77%
2	Rafael Nadal	1.41%
3	Stan Wawrinka	1.27%
4	Roger Federer	1.26%
5	Jo-Wilfried Tsonga	1.18%
6	Andy Murray	1.05%
7	Tomas Berdych	0.97%
8	Milos Raonic	0.90%
9	Juan Martin Del Potro	0.87%
10	Andy Roddick	0.74%

Top 10 Clutch Returners

Rank	Player	Delta
1	Novak Djokovic	1.82%
2	Rafael Nadal	1.51%
3	Andy Murray	1.29%
4	Roger Federer	1.21%
5	David Ferrer	1.11%
6	Jo-Wilfried Tsonga	1.02%
7	Tomas Berdych	0.98%
8	Stanislas Wawrinka	0.92%
9	Mardy Fish	0.91%
10	Juan Martin Del Potro	0.76%

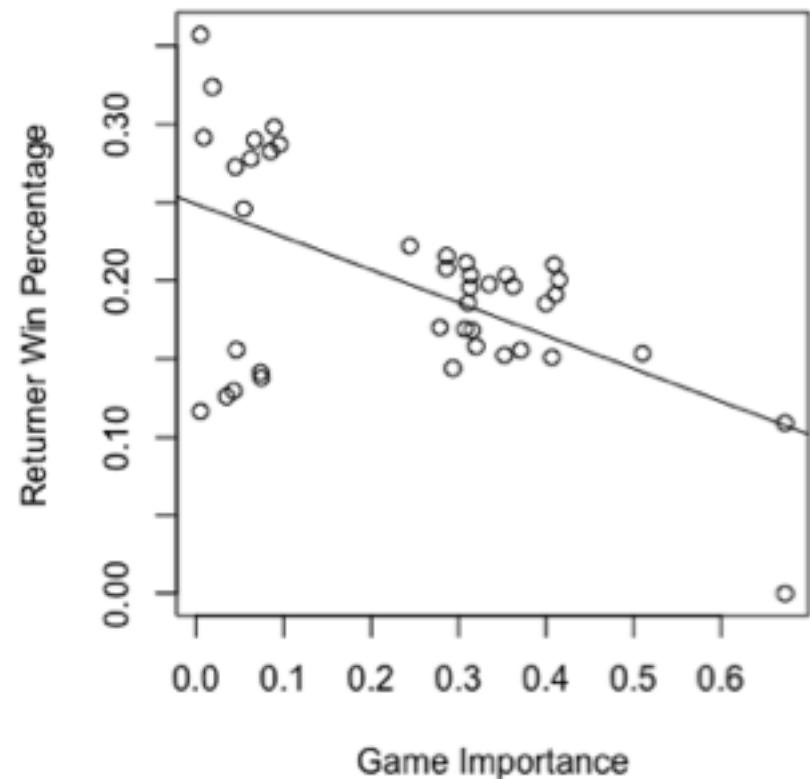
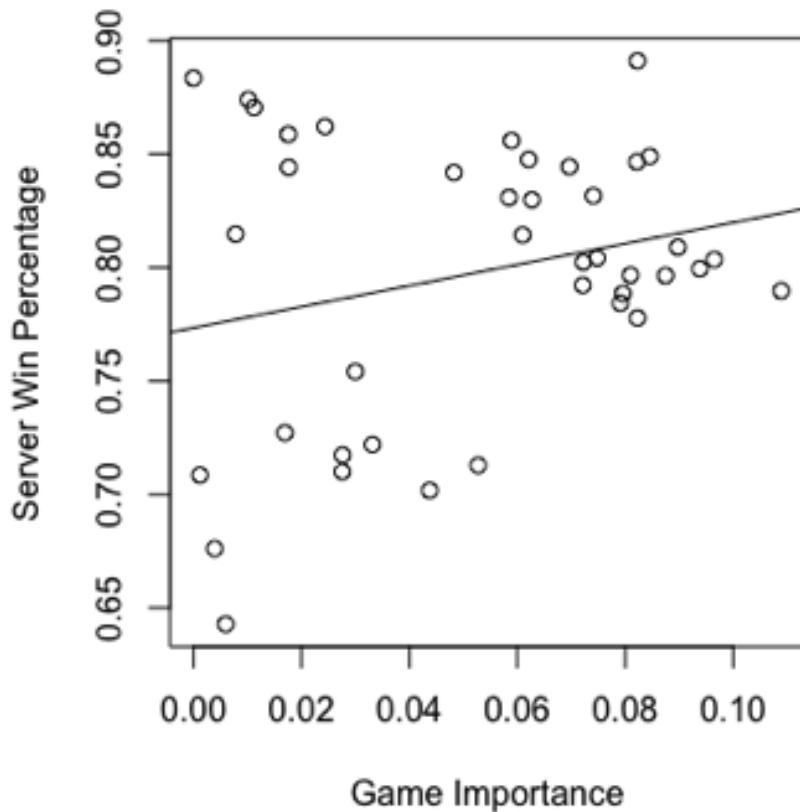
Comparison to Importance Plus-Minus

Figure 1. Top 20 ATP Players in Overall Importance Plus Minus



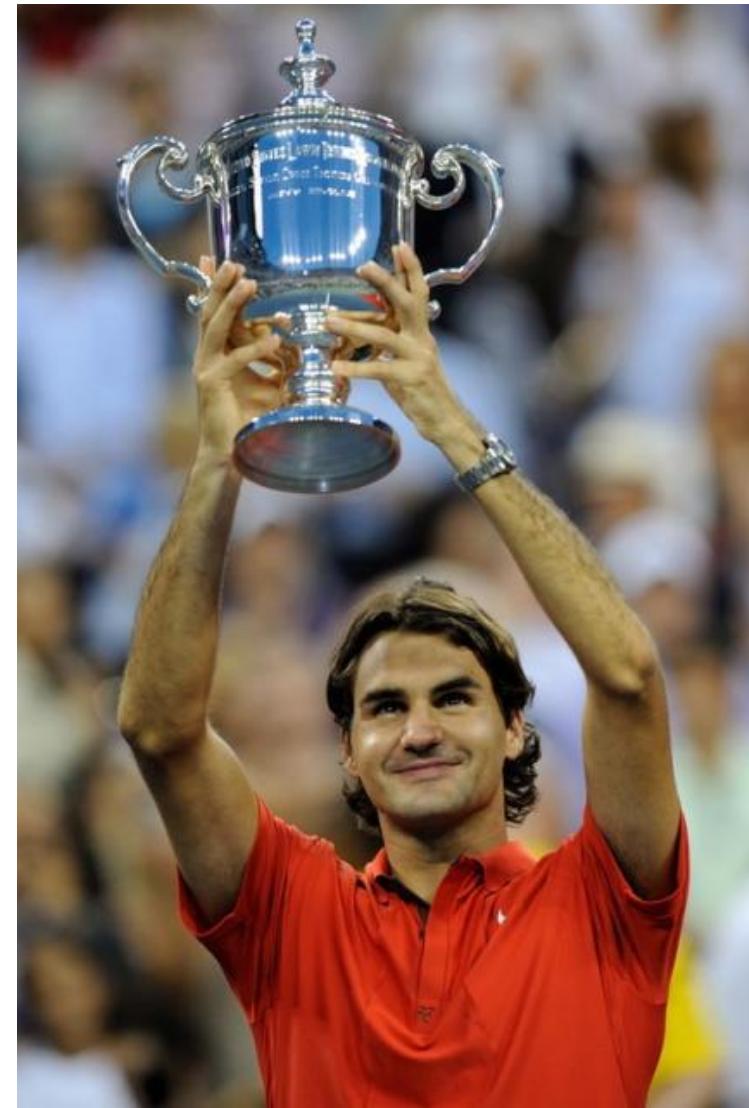
Top 10 Overall Clutch Performers		
Rank	Player	Beta
1	Novak Djokovic	1.79%
2	Rafael Nadal	1.46%
3	Roger Federer	1.23%
4	Andy Murray	1.17%
5	Jo-Wilfried Tsonga	1.08%
6	Stan Wawrinka	1.01%
7	Tomas Berdych	0.97%
8	David Ferrer	0.91%
9	Juan Martin Del Potro	0.78%
10	Mardy Fish	0.73%

Overall Serve/Return Clutchness



Limitations/Extensions

- Favors players in close matches
- Include how a player wins the point
- Doesn't take round into account



Sources

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