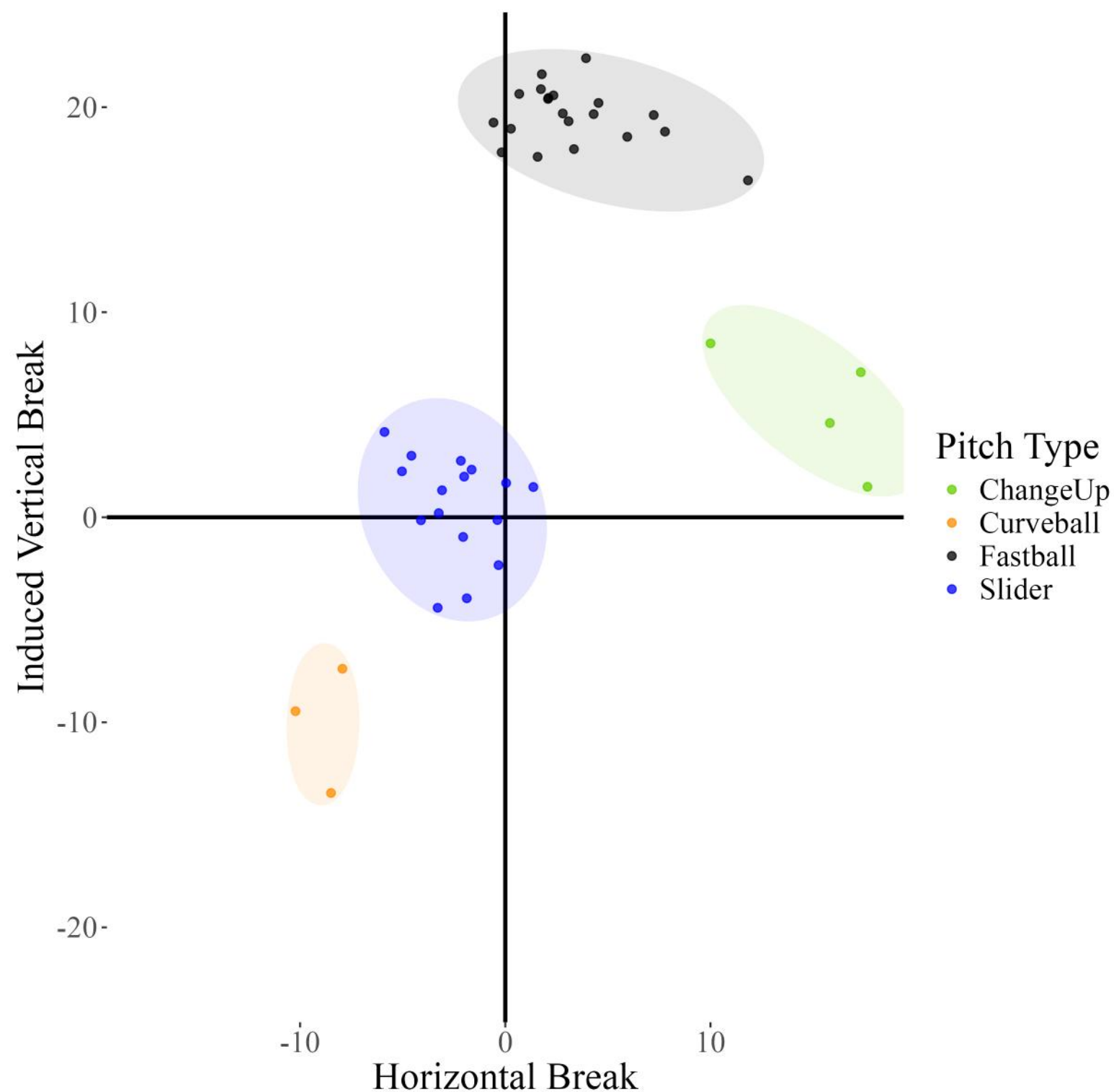


## Pitch Movement

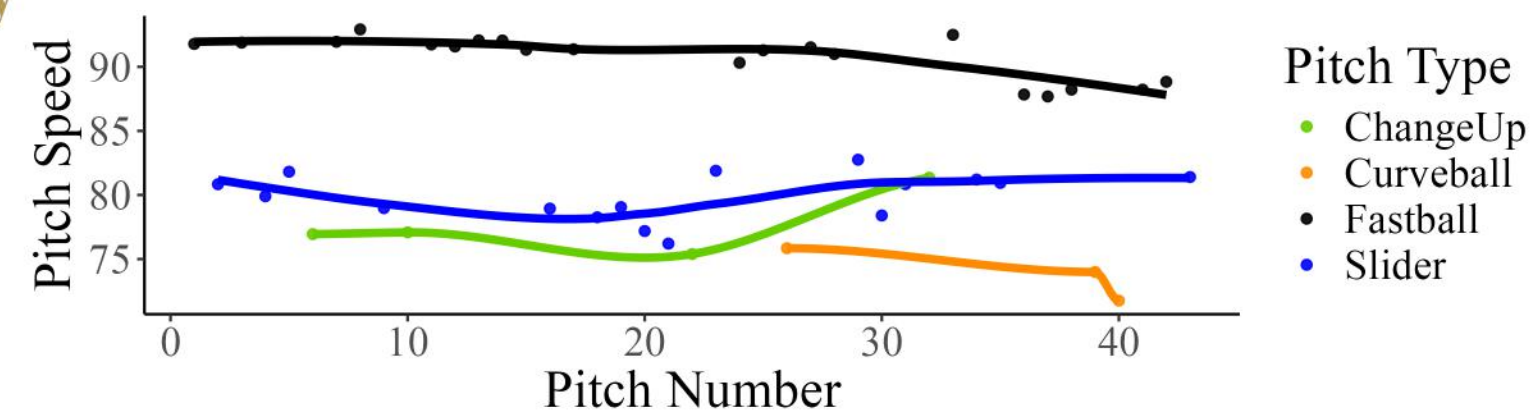


## Outing Metrics

Pitch	Avg Velo	Velocity	Spin Rate	VAA	Tilt	Avg IVB	IVB	Avg Hor.B	Hor.B
ChangeUp	77.7	75.4 to 81.3	1548	-8.8	2:30	5.4	1 to 8	15.2	10 to 18
Curveball	73.9	71.8 to 75.8	2305	-7.7	7:15	-10.1	-13 to -7	-8.9	-10 to -8
Fastball	90.8	87.7 to 92.9	2332	-5.0	11:45	19.5	16 to 22	3.3	-1 to 12
Slider	79.9	76.2 to 82.8	2344	-8.1	7:49	0.6	-4 to 4	-2.4	-6 to 1

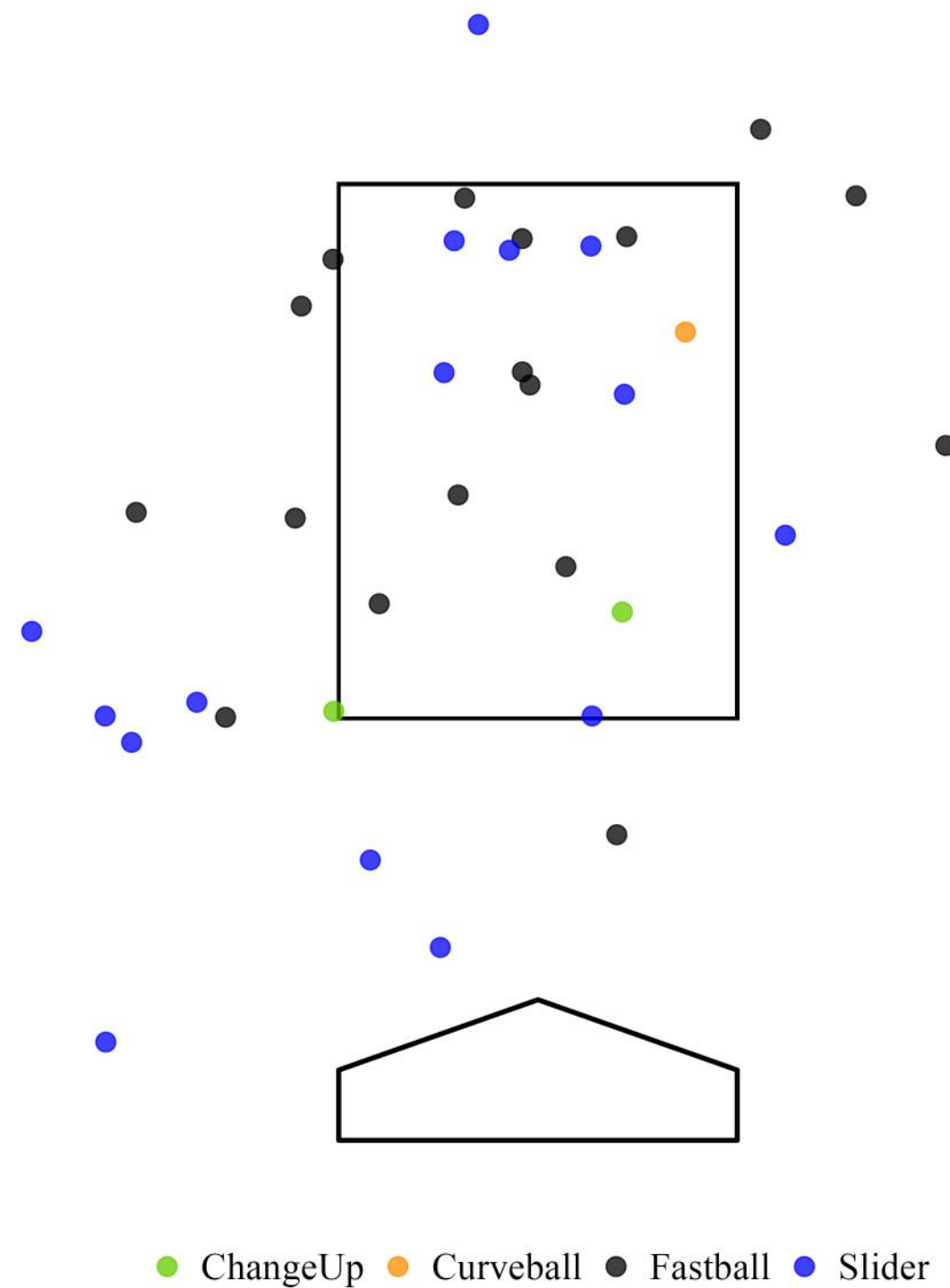
Pitch	Pitches	Pitch%	Strikes	Balls	Strike %	Swing & Miss	Swings	1st Pitch S%
ChangeUp	4	9.3%	2	1	75%	1	2	0 / 0
Curveball	3	7%	0	2	33%	0	0	0 / 1
Fastball	20	46.5%	9	8	60%	0	9	2 / 5
Slider	16	37.2%	7	8	50%	2	7	3 / 5

## Velocity

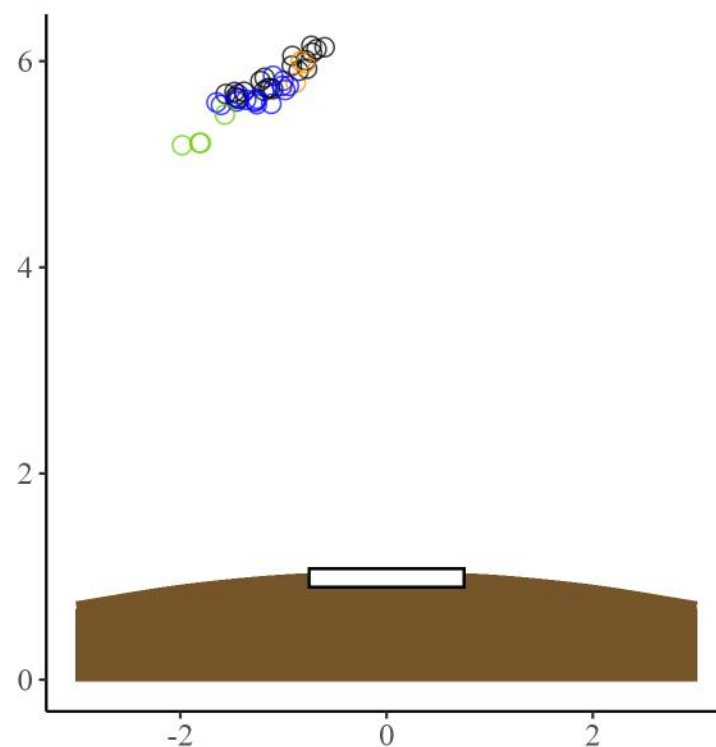


# Shove Score: 58

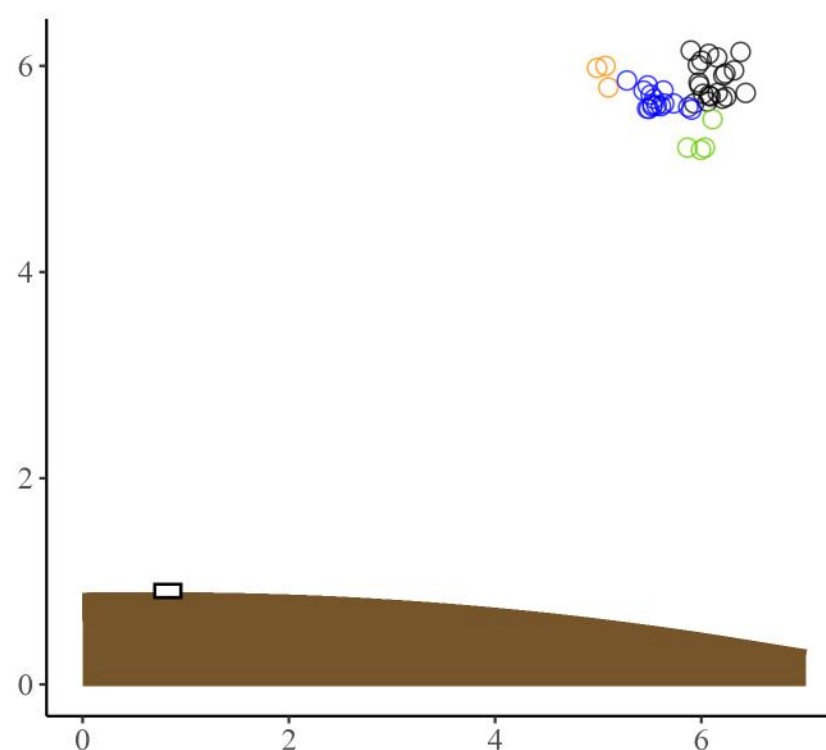
## Pitch Location



## Release (Front)

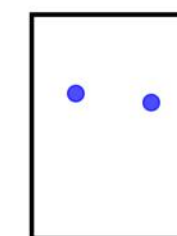


## Release (Side)

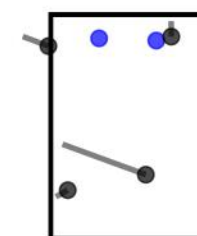


## Quality of Contact

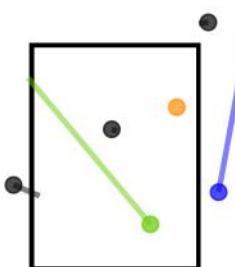
Hard Hit



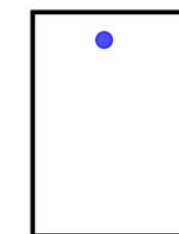
Non-Hard Hit



Strike Called

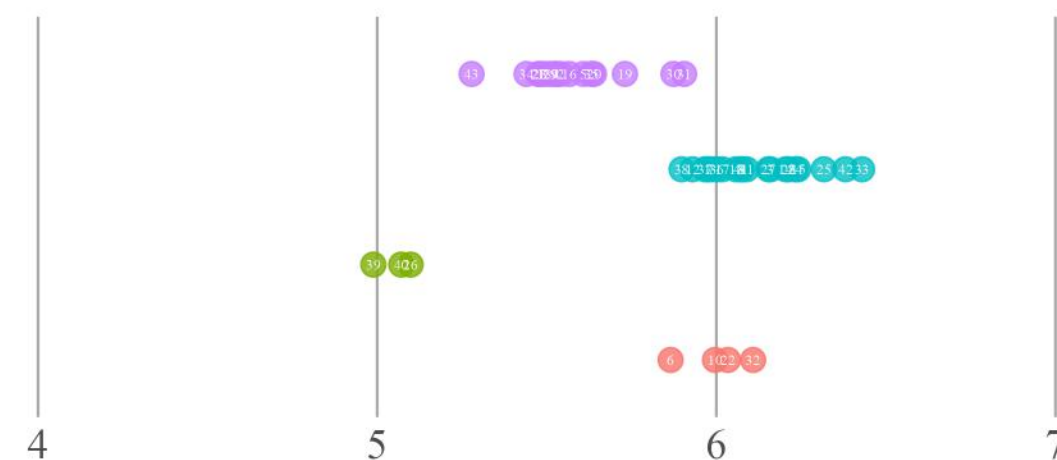


Swing &amp; Miss

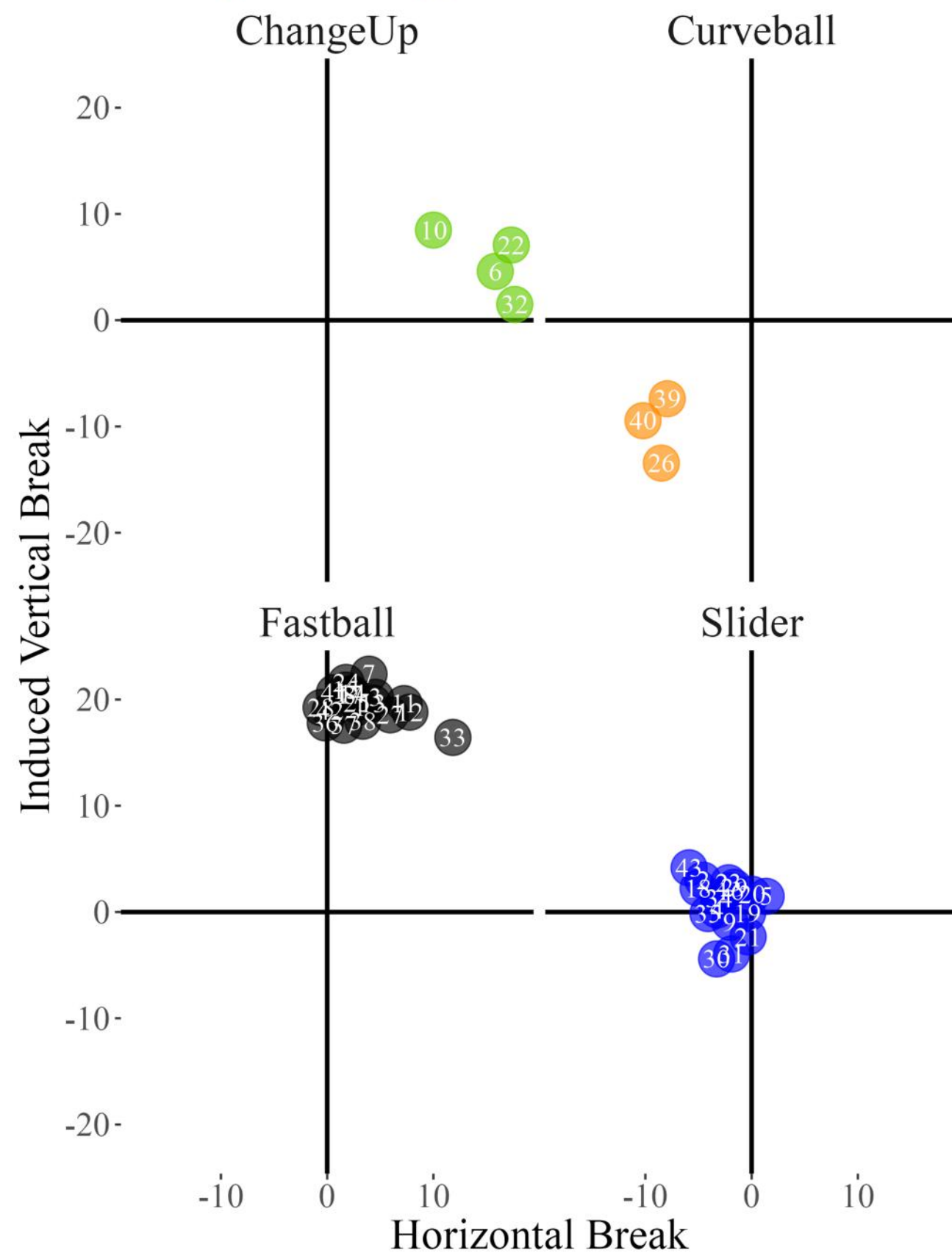


● ChangeUp ● Curveball ● Fastball ● Slider

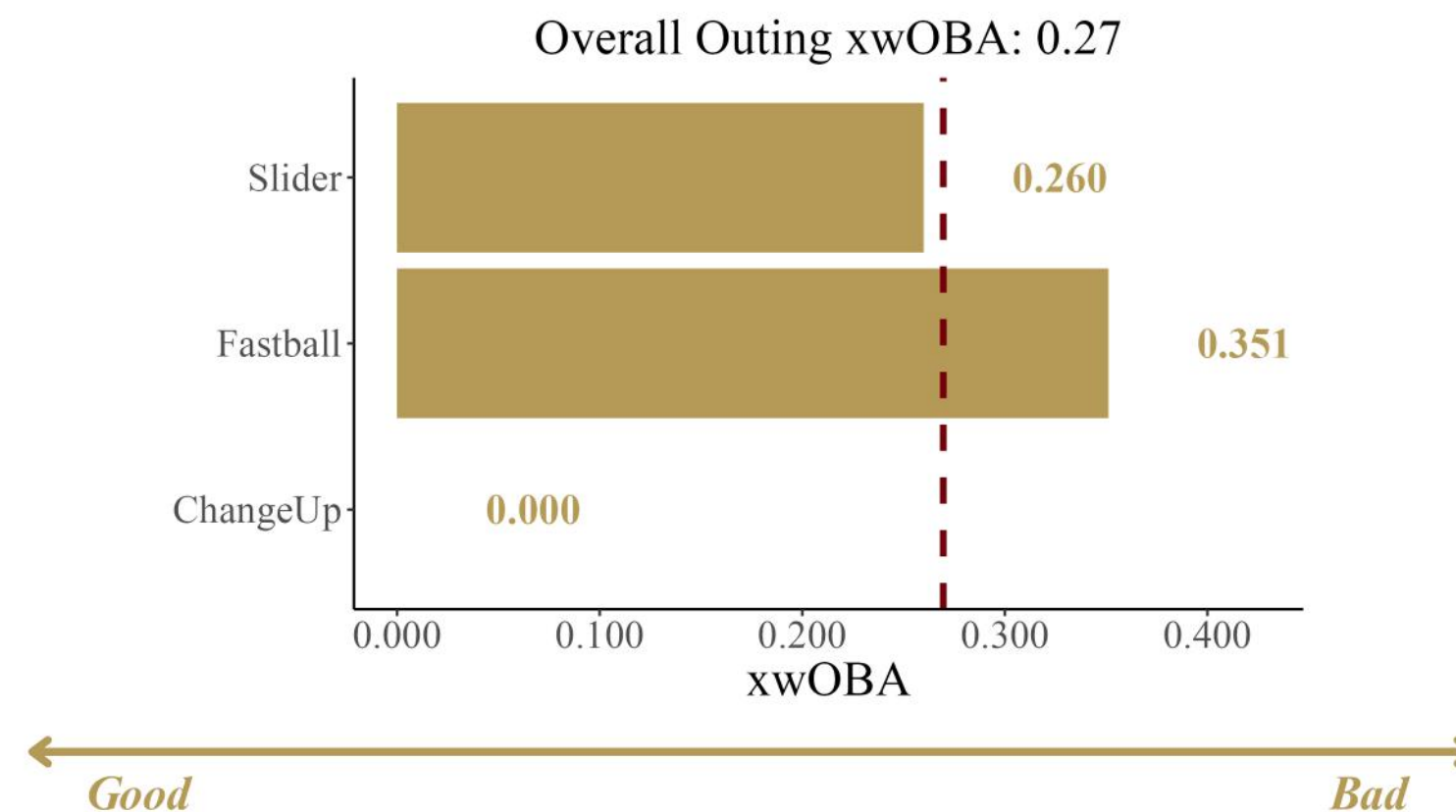
## Extension

 Slider  
 Fastball  
 Curveball  
 ChangeUp


## Pitch Movement by Pitch Type & Number



## Quality of Contact by Pitch Type



## Batted Balls

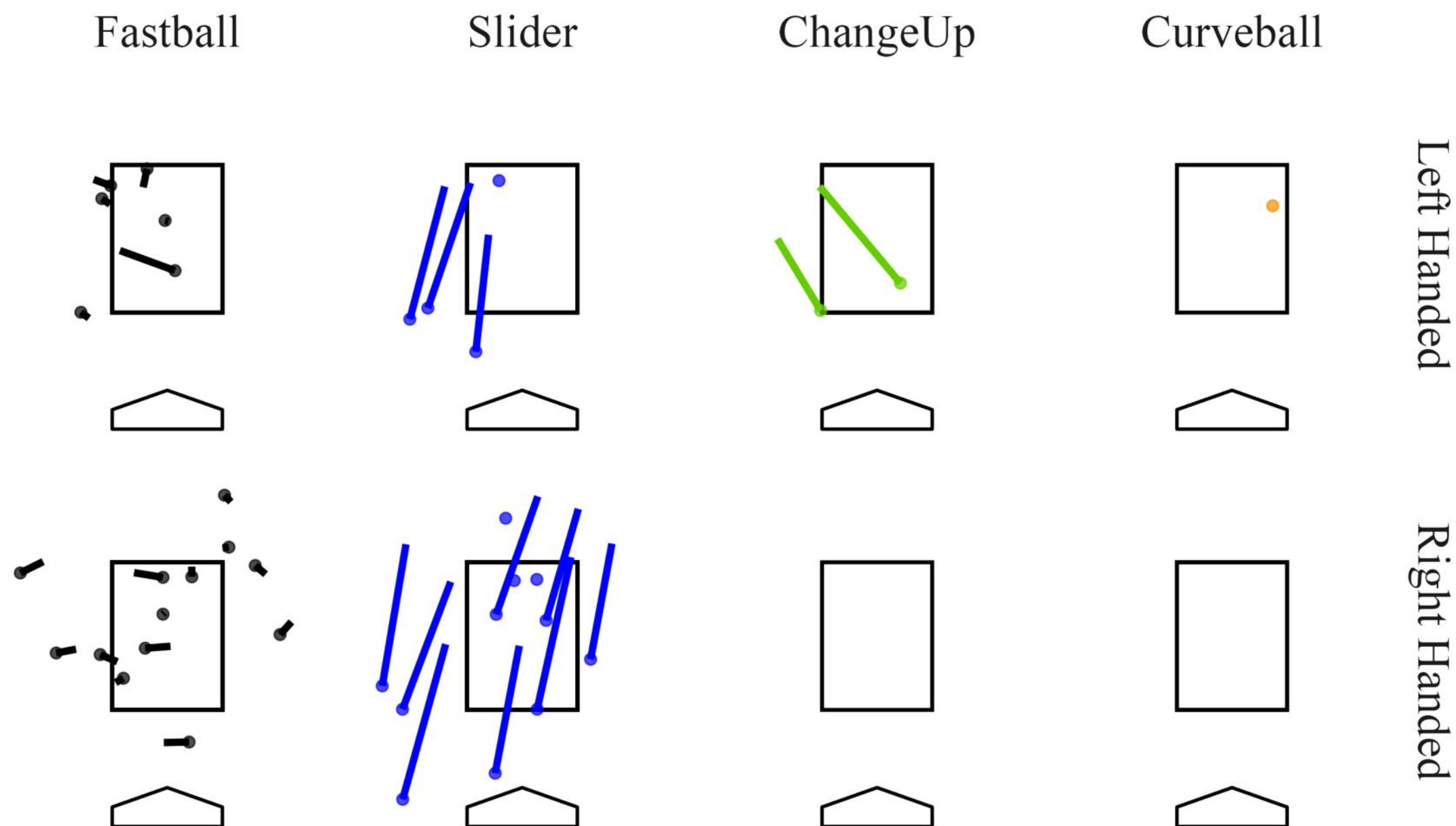
Pitch	Ground	Fly	Line	Pop
ChangeUp	1	0	0	0
Fastball	1	2	1	0
Slider	3	2	0	0
Total	5	4	1	0

## Hard Hit Balls (95+ EV)

Pitch	Ground	Fly	Line	Pop
Slider	2	0	0	0
Total	2	0	0	0



## Pitch Location & Tunnel by Batter Handedness



## Count Outcomes vs. RHH

Count	ChangeUp	Curveball	Fastball	Slider	Total
P Ahead	1	0	1	5	7
0-0	0	1	3	4	8
P Behind	0	1	6	1	8
Even	0	0	3	1	4
Full	0	0	0	1	1

## Count Outcomes vs. LHH

Count	ChangeUp	Curveball	Fastball	Slider	Total
Full	1	0	0	0	1
P Ahead	1	0	2	0	3
P Behind	1	0	2	2	5
Even	0	1	1	1	3
0-0	0	0	2	1	3

## Glossary

**Induced Vertical Break:** Abbreviated as “IVB.” Vertical movement of a pitch due to spin (in Inches. Fastballs are positive IVB, Curveballs are negative).

**Horizontal Break:** Abbreviated as “Hor.B.” Horizontal movement of a pitch due to spin (in Inches. LHP Sliders are positive. RHP Sliders are negative).

**Spin Rate:** How much a pitch spins (Measured in Revolutions per Minute (RPM) ).

**VAA:** Vertical Approach Angle. Generally negative. Closer to 0 degrees is closer to throwing a pitch completely straight/flat.

**Tilt:** Direction in which the ball is spinning, reported as time on a clock face (Fastball is close to 12:00, Curveball is close to 6:00).

**Hard Hit Ball:** A batted ball with an exit velocity (EV) of at least 95 mph.

**Extension:** How far away (in feet) from the pitching rubber (towards home plate) that the ball is released (MLB average is over 6 feet).

**wOBA:** A metric that weighs how often a hitter gets on base and the total bases gained. Higher is better for the hitter (Average pitching outing is 0.371).

**xwOBA:** wOBA but solely reliant on the quality of contact given up: exit velocity and launch angle of batted balls allowed (Average pitching outing is 0.380).

**Tunnel:** The perceived location of a pitch assuming it moves with the same trajectory as a pitch with different movement (usually compared to a fastball).