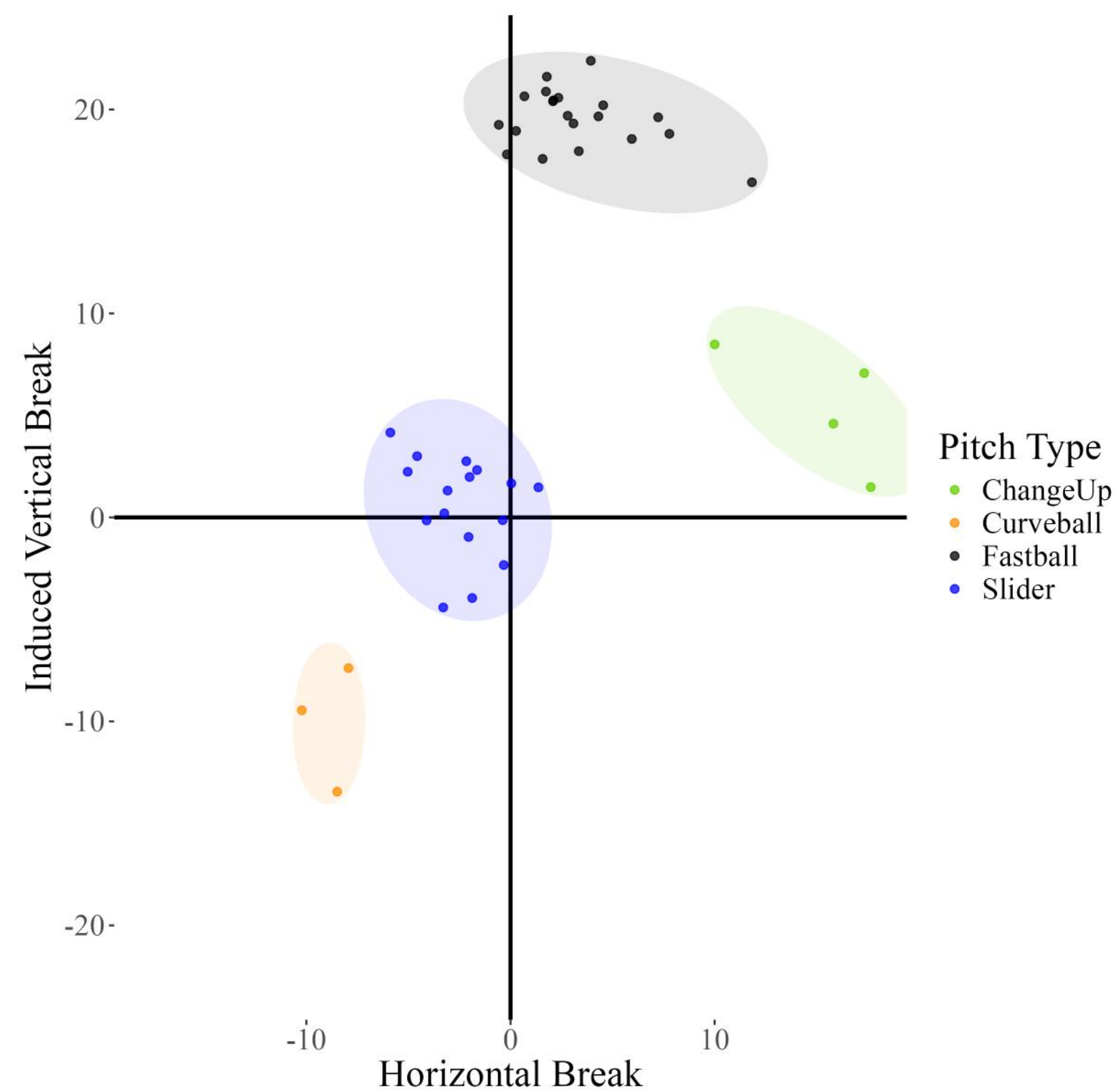


Pitch Movement



Outing Metrics

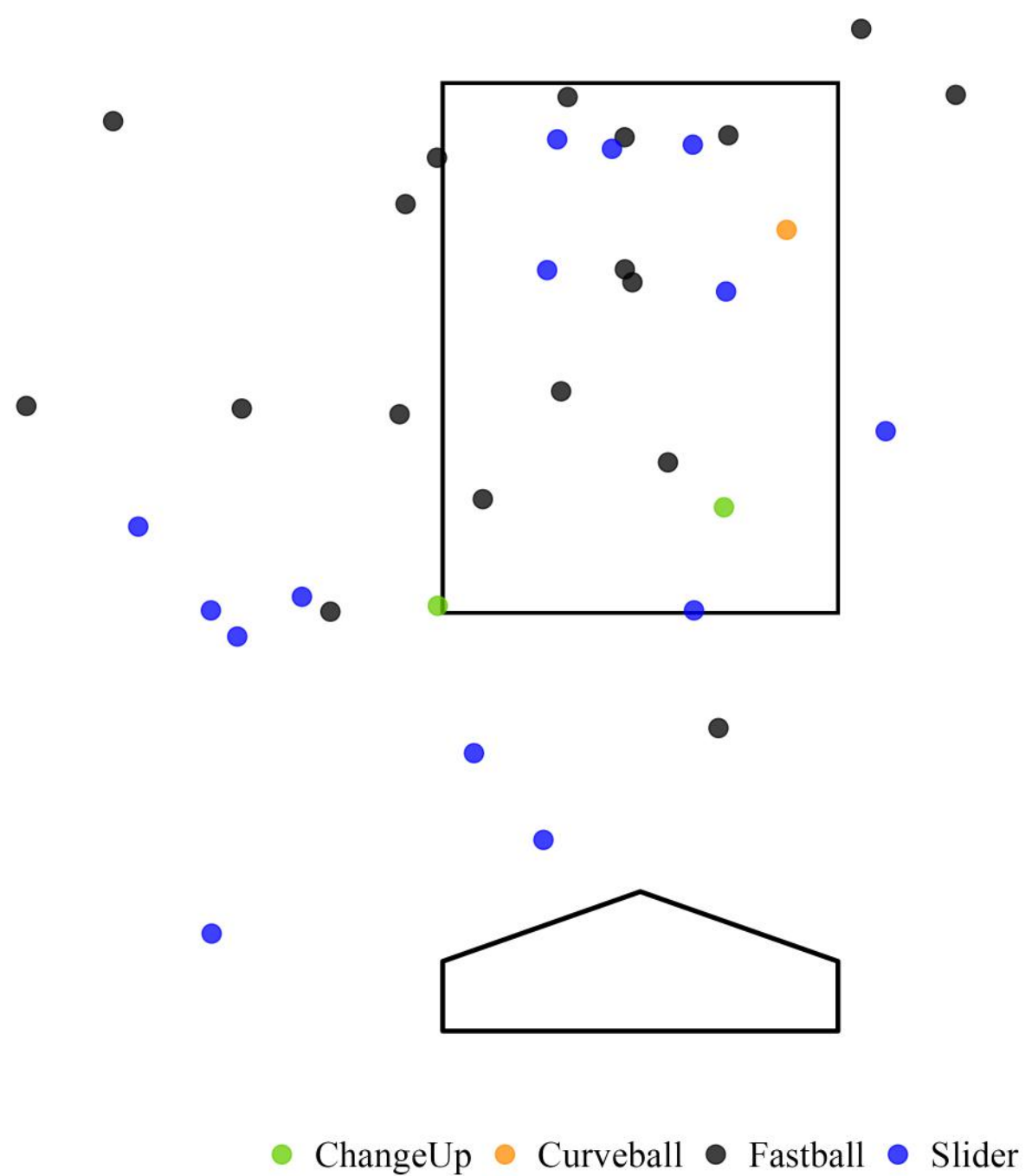
Pitch	Avg Velo	Velocity	Spin Rate	VAA	Tilt	Avg IVB	IVB	Avg Hor.B	Hor.B
ChangeUp	77.7	75.4 to 81.3	1548	-8.8	2:30	5.4	1 to 8	15.2	10 to 18
Curveball	73.9	71.8 to 75.8	2305	-7.7	7:15	-10.1	-13 to -7	-8.9	-10 to -8
Fastball	90.8	87.7 to 92.9	2332	-5.0	11:45	19.5	16 to 22	3.3	-1 to 12
Slider	79.9	76.2 to 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%	3	1	75%	1	2	0 / 0
Curveball	3	7%	1	2	33%	0	0	0 / 1
Fastball	20	46.5%	12	8	60%	0	9	2 / 5
Slider	16	37.2%	8	8	50%	2	7	3 / 5

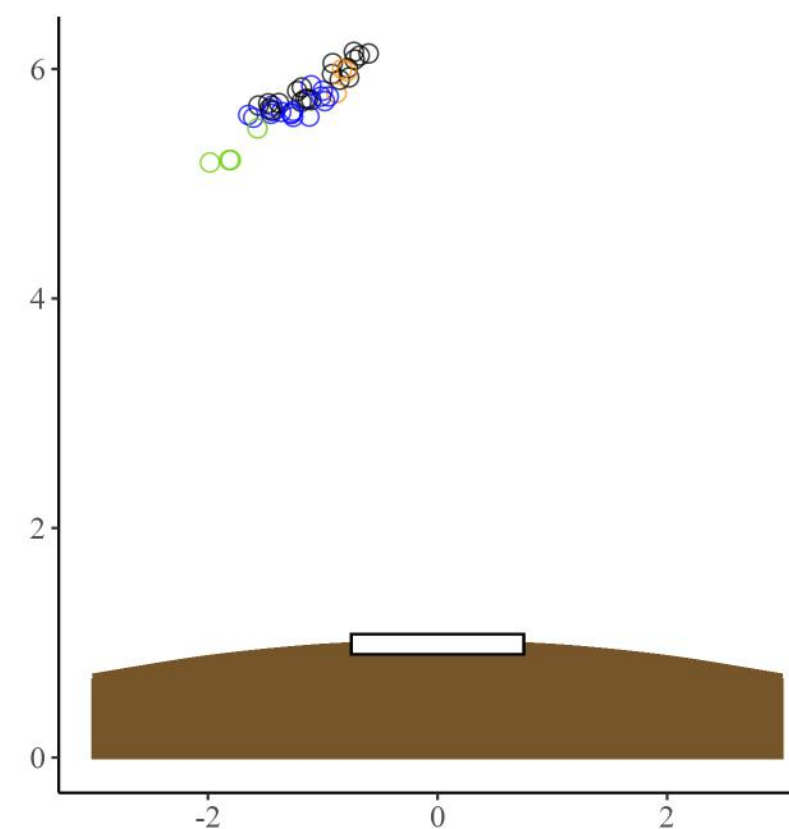
Shove Score: 58

K%	BB%	Strike%	1st Pitch Strike%	Avg. FB Velo	Max FB Velo	FB Spin Rate
15%	8%	56%	45%	91.1	92.9	2467

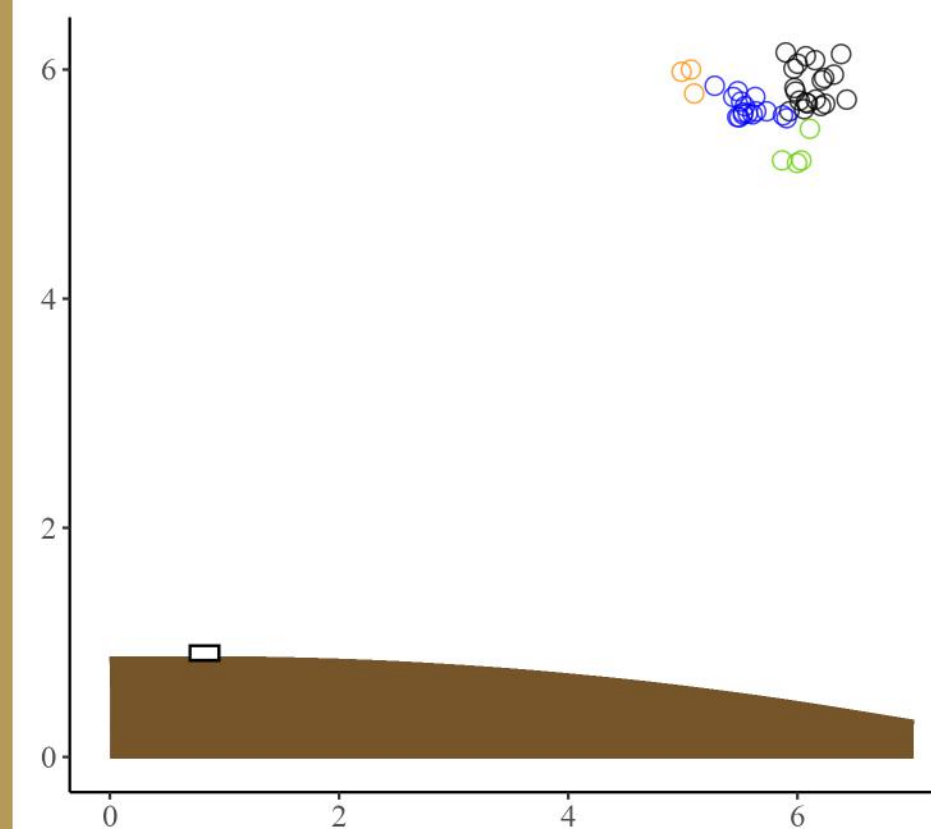
## Pitch Location



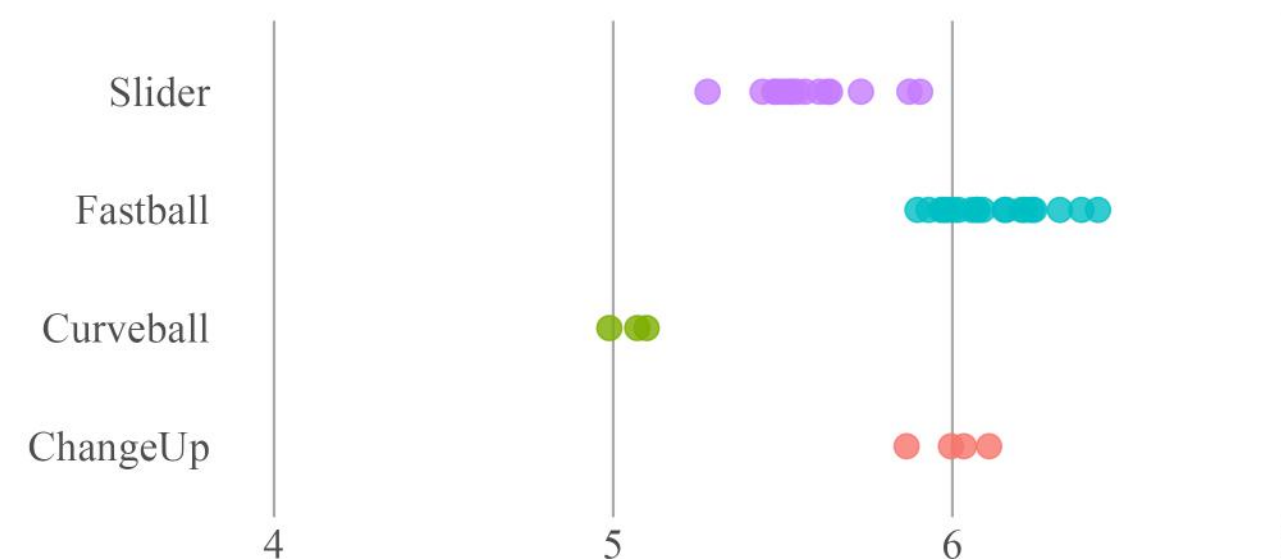
## Release (Front)



## Release (Side)



## Extension





## Pitch by Pitch Metrics

#	Pitch Type	Release Height	Release Side	Extension	Velo	IVB	HB	Tilt	Spin Rate
1	Fastball	5.84	1.18	5.97	91.8	19.3	3.1	12:15	2310
2	Slider	5.68	1.44	5.54	80.8	3.0	-4.6	09:30	2281
3	Fastball	5.74	1.15	6.16	91.9	20.2	4.5	12:30	2248
4	Slider	5.63	1.36	5.53	79.9	0.2	-3.2	08:00	2241
5	Slider	5.61	1.45	5.61	81.8	1.5	1.4	03:45	2336
6	ChangeUp	5.21	1.82	5.87	76.9	4.6	15.8	02:45	1430
7	Fastball	5.81	1.22	5.98	92.0	22.4	3.9	12:15	2232
8	Fastball	5.71	1.19	6.07	92.9	20.4	2.1	12:15	2184
9	Slider	5.61	1.27	5.53	79.0	-1.0	-2.1	07:15	2269
10	ChangeUp	5.19	1.98	6.00	77.1	8.5	10.0	01:45	1525
11	Fastball	5.70	1.38	6.09	91.7	19.6	7.2	12:45	2261
12	Fastball	5.64	1.45	5.93	91.6	18.8	7.8	12:45	2309
13	Fastball	5.65	1.46	6.06	92.1	19.7	4.3	12:30	2313
14	Fastball	5.68	1.56	6.20	92.1	20.6	2.3	12:15	2342
15	Fastball	5.70	1.47	6.24	91.3	20.9	1.7	12:15	2291
16	Slider	5.62	1.27	5.57	78.9	2.0	-2.0	09:00	2251
17	Fastball	5.73	1.10	6.02	91.4	20.5	2.1	12:15	2310
18	Slider	5.58	1.26	5.49	78.3	2.2	-5.0	09:00	2314
19	Slider	5.64	1.43	5.73	79.1	-0.1	-0.4	06:30	2329
20	Slider	5.63	1.26	5.64	77.2	1.7	0.0	05:45	2303
21	Slider	5.59	1.12	5.47	76.2	-2.3	-0.3	06:15	2251
22	ChangeUp	5.21	1.80	6.03	75.4	7.1	17.3	02:30	1426
23	Slider	5.81	1.00	5.48	81.9	2.8	-2.2	10:00	2430
24	Fastball	5.93	0.77	6.23	90.3	21.6	1.8	12:15	2418
25	Fastball	5.96	0.92	6.32	91.3	19.7	2.8	12:15	2421

## Pitch by Pitch Metrics

#	Pitch Type	Release Height	Release Side	Extension	Velo	IVB	HB	Tilt	Spin Rate
26	Curveball	5.79	0.88	5.10	75.8	-13.4	-8.5	07:00	2338
27	Fastball	6.08	0.72	6.15	91.5	18.6	5.9	12:45	2428
28	Fastball	5.91	0.85	6.21	91.0	19.2	-0.6	12:00	2467
29	Slider	5.72	0.98	5.51	82.8	2.3	-1.6	09:45	2432
30	Slider	5.60	1.65	5.87	78.4	-4.4	-3.3	07:00	2409
31	Slider	5.58	1.61	5.90	80.8	-4.0	-1.9	06:45	2202
32	ChangeUp	5.48	1.57	6.11	81.3	1.5	17.7	03:00	1810
33	Fastball	5.74	1.13	6.43	92.5	16.4	11.8	01:15	2283
34	Slider	5.76	1.01	5.44	81.2	1.3	-3.1	08:45	2461
35	Slider	5.76	0.95	5.63	80.9	-0.1	-4.1	08:15	2545
36	Fastball	6.05	0.91	6.00	87.8	17.8	-0.2	12:00	2346
37	Fastball	6.01	0.78	5.97	87.7	17.6	1.6	12:15	2366
38	Fastball	6.15	0.73	5.90	88.2	18.0	3.3	12:30	2374
39	Curveball	5.98	0.79	4.99	74.0	-7.4	-7.9	07:15	2316
40	Curveball	6.00	0.83	5.07	71.8	-9.5	-10.2	07:30	2262
41	Fastball	6.12	0.68	6.07	88.2	20.6	0.7	12:00	2373
42	Fastball	6.14	0.60	6.38	88.8	18.9	0.3	12:00	2356
43	Slider	5.86	1.10	5.28	81.4	4.2	-5.9	09:45	2447

## 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).

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

**Shove Score:** An outing grade from 0 to 100 that utilizes various outing metrics (those shown in the table below the score) compared against the percentile rankings for CAA pitchers in the 2024 season.