

How to tell if a hockey player performs well (enough)

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WHAT CAN WE DO?

	Player	Season	Team	Pos	GP	G↓	A↓	P↓	+/-	PIM
	Search									
1	Connor McDavid	2017-18	EDM	C	82	41	67	108	20	26
2	Claude Giroux	2017-18	PHI	C	82	34	68	102	28	20
3	Nikita Kucherov	2017-18	TBL	R	80	39	61	100	15	42
4	Evgeni Malkin	2017-18	PIT	C	78	42	56	98	16	87
5	Nathan MacKinnon	2017-18	COL	C	71	30	58	97	11	55
6	Taylor Hall	2017-18	EDM	R	82	34	54	93	14	34
7	Anze Kopitar	2017-18	LAK	C	82	35	57	92	21	20
8	Phil Kessel	2017-18	PIT	R	82	34	58	92	-4	36
9	Blake Wheeler	2017-18	WPG	R	81	23	68	91	13	52
10	Sidney Crosby	2017-18	PIT	C	82	29	60	89	0	46
11	Alex Ovechkin	2017-18	WSH	L	82	49	38	87	3	32
12	Steven Stamkos	2017-18	TBL	C	78	27	59	86	18	72
13	Brad Marchand	2017-18	BOS	L	68	34	51	85	25	63
14	Mathew Barzal	2017-18	NYI	C	82	22	63	85	1	30
15	Jakub Voracek	2017-18	PHI	R	82	20	65	85	10	50

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4	Evgeni Malkin	2017-18	PIT	C	78	42	56	98	16	87
5	Nathan MacKinnon	2017-18	COL	C	74	39	58	97	11	55
6	Taylor Hall	2017-18	LAD	L	76	39	54	93	14	34
7	Anze Kopitar	2017-18	LAK	C	70	35	57	92	21	20
8	Phil Kessel	2017-18	PIT	R	82	34	58	92	-4	36
9	Blake Wheeler	2017-18	WPG	R	81	23	68	91	13	52
10	Sidney Crosby	2017-18	PIT	C	82	29	60	89	0	46
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FENWICK

SHOTS
DN

MISSED
SHOTS

THERE ARE SOME
ADVANCED STATISTICS

ROHLIN

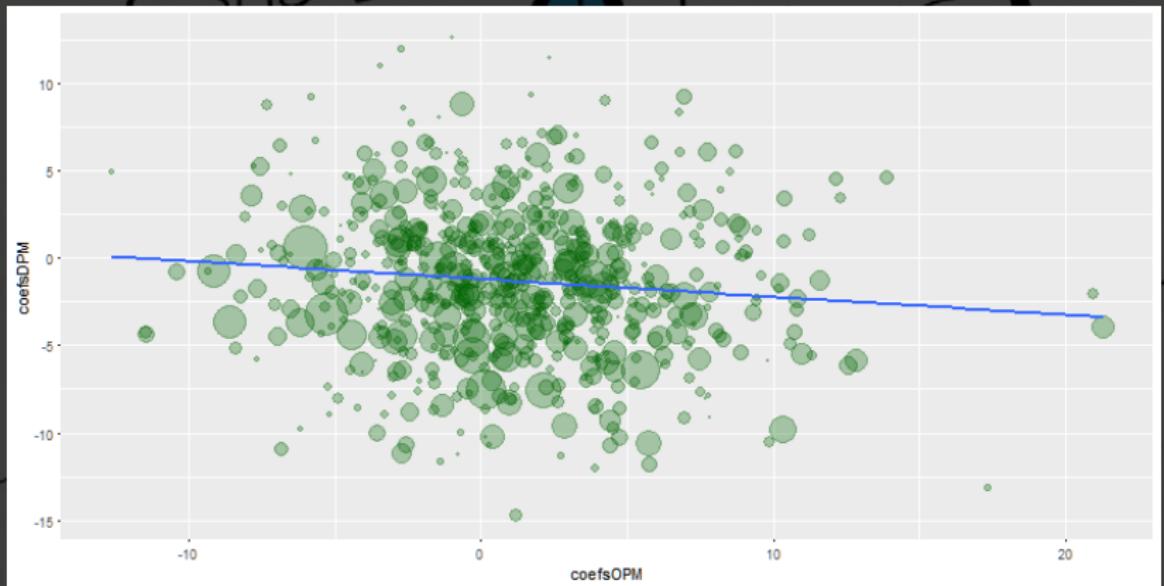
TORTS

BLOCKED
SHOTS

CORSI

FENWICK

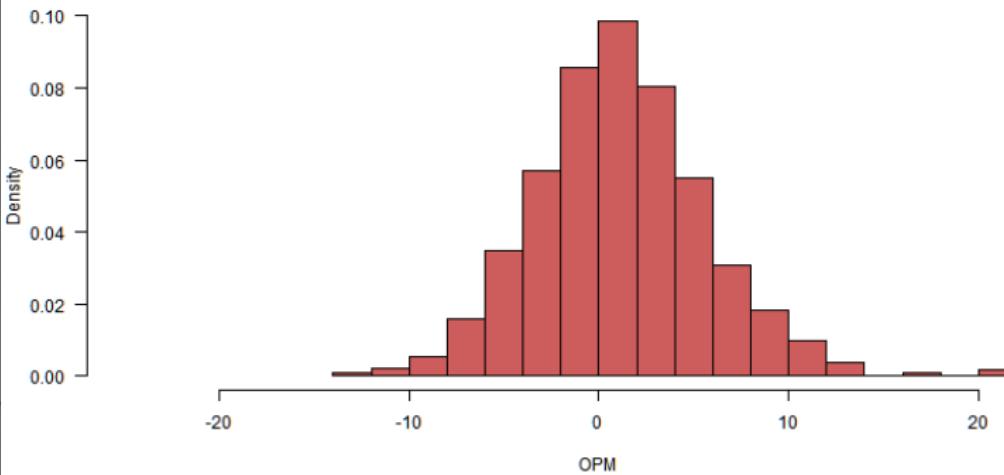
There are some applied models



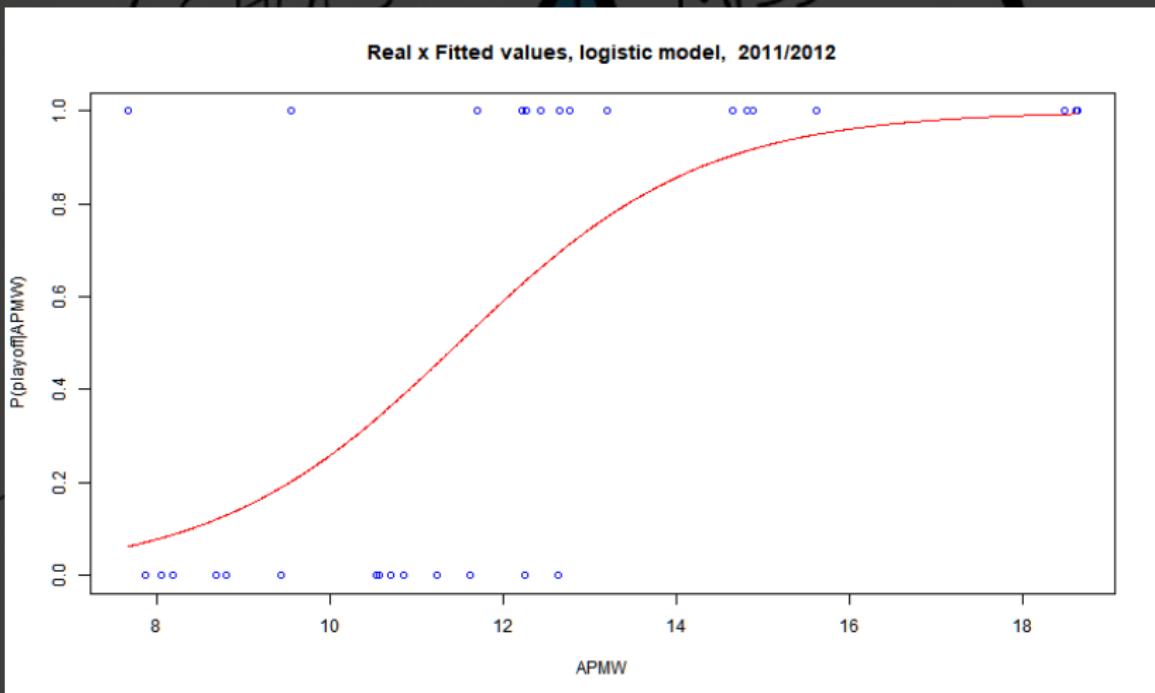
FENWICK

I have verified some models

Histogram OPM, season 2011/2012



I have back-tested some models





HOW IS R INVOLVED?

Play By Play



6



7



PHILADELPHIA FLYERS
Game 65 Away Game 33

Saturday, March 3, 2018
Attendance 19,092 at Amalie Arena
Start 1:08 EST; End 3:57 EST
Game 1000
Final

TAMPA BAY LIGHTNING
Game 66 Home Game 30

#	Per	Str	Time:	Elapsed Game	Event	Description	PHI On Ice	T.B On Ice
33	1	SH	6:32		TAKE	T.B TAKEAWAY - #10 MILLER, Def. Zone	14 19 28 93 53 34	10 21 5 77 88
			13:28				C C R D G	C C D D G
34	1	PP	6:57		SHOT	PHI ONGOAL - #28 GIROUX, Wrist, Off. Zone, 52 ft.	14 19 28 93 53 34	17 24 5 77 88
			13:03				C C R D G	C R D D G
35	1	PP	7:08		GOAL	PHI #19 PATRICK(10), Tip-In, Off. Zone, 15 ft. Assists: #28 GIROUX(54); #93 VORACEK(57)	14 19 28 93 53 34	17 24 5 77 88
			12:52				C C R D G	C R D D G
36	1	EV	7:08		FAC	TP won Neu. Zone - PHI #51 FILPPULA vs T.B #21 STAMKOS	15 40 51 8 47 34	17 91 86 6 98 88
			7:12				C C L D G	C C D D G
			12:24		GIVE	PHI GIVEAWAY - #98 STAMKOS vs T.B #21 STAMKOS	15 40 51 8 47 34	17 91 86 6 98 88
38	1		7:36		FAC	TP won Def. Zone - PHI #28 GIROUX vs T.B #21 STAMKOS	15 40 51 8 47 34	17 91 86 6 98 88
			12:24				C C D D G	C C R D D G
39	1	EV	7:48		TAKE	T.B TAKEAWAY - #21 STAMKOS, Off. Zone	11 14 28 3 23 34	10 21 37 6 77 88
			12:12				C C R D D G	C C D D G
40	1	EV	7:54		FAC	PHI won Def. Zone - PHI #14 COUTURIER vs T.B #9 JOHNSON	11 14 28 3 23 34	10 21 37 6 77 88
			12:06				C C R D D G	C C D D G
41	1	EV	7:54		PENL	PHI #28 GIROUX Slashing(2 min), Off. Zone Drawn By: T.B #37 GOURDE	11 14 28 3 23 34	10 21 37 6 77 88
			12:06				C C R D D G	C C D D G
42	1	SH	7:54		FAC	PHI won Def. Zone - PHI #14 COUTURIER vs T.B #91 STAMKOS	14 12 3 9 34	10 17 91 86 77 88
			12:06				C L D D G	C C C R D G
43	1	PP	8:16		GOAL	T.B #91 STAMKOS(26), Slap, Off. Zone, 41 ft. Assists: #77 HEDMAN(37); #86 KUCHEROV(50)	14 12 3 9 34	10 17 91 86 77 88
			11:44				C L D D G	C C C R D G
44	1	EV	8:16		FAC	PHI won Neu. Zone - PHI #19 PATRICK vs T.B #9 JOHNSON	19 93 54 8 47 34	9 89 73 55 62 88
			11:44				C R L D D G	C C L D D G
45	1	EV	9:25		BLOCK	T.B #24 CALLAHAN BLOCKED BY PHI #3 GUDAS, Wrist, Def. Zone	12 20 21 3 23 34	71 24 14 6 98 88
			10:35				L L L D D G	C R L D D G
46	1	EV	9:35		GIVE	PHI GIVEAWAY - #21 LAUGHTON, Neu. Zone	12 20 21 9 53 34	71 24 14 6 98 88
			10:25				L L L D D G	C R L D D G
47	1	EV	10:23		MISS	PHI #47 MACDONALD, Slap, Wide of Net, Off. Zone, 60 ft.	15 40 51 8 47 34	10 21 37 5 77 88
			9:37				C C C D D G	C C C D D G
48	1		10:36		STOP	ICING	15 40 51 8 47 34	17 91 86 55 62 88
			9:24				C C C D D G	C C R D D G
49	1	EV	10:36		FAC	PHI won Def. Zone - PHI #51 FILPPULA vs T.B #17 KILLORN	15 40 51 8 47 34	17 91 86 55 62 88
			9:24				C C C D D G	C C R D D G
50	1	EV	10:50		HIT	PHI #15 LEHTERA HIT T.B #86 KUCHEROV, Def. Zone	15 40 51 8 47 34	17 91 86 55 62 88
			9:10				C C C D D G	C C R D D G
51	1		11:03		STOP	OFFSIDE TV TIMEOUT	15 40 51 9 53 34	17 91 86 55 62 88
			8:57				C C C D D G	C C R D D G
52	1	EV	11:03		FAC	TP won Neu. Zone - PHI #19 PATRICK vs T.B #9 JOHNSON	19 93 54 9 53 34	9 89 73 55 62 88
			8:57				C R L D D G	C C L D D G

HOW DO WE PROCESS DATA?

nhlscrapr: Compiling the NHL Real Time Scoring System Database for easy use in R

Compiling the NHL Real Time Scoring System Database for easy use in R.

Version: 1.8.1

Depends: R (\geq 2.15.0)

Imports: [RCurl](#), [rjson](#), [biglm](#), [bitops](#)

Published: 2017-03-08

Author: A.C. Thomas, Samuel L. Ventura

Maintainer: ORPHANED

License: [GPL \(\$\geq\$ 3\)](#)

NeedsCompilation: yes

CRAN checks: [nhlscrapr results](#)

NHLSCRAPR!

Downloads:

Reference manual: [nhlscrapr.pdf](#)

Package source: [nhlscrapr_1.8.1.tar.gz](#)

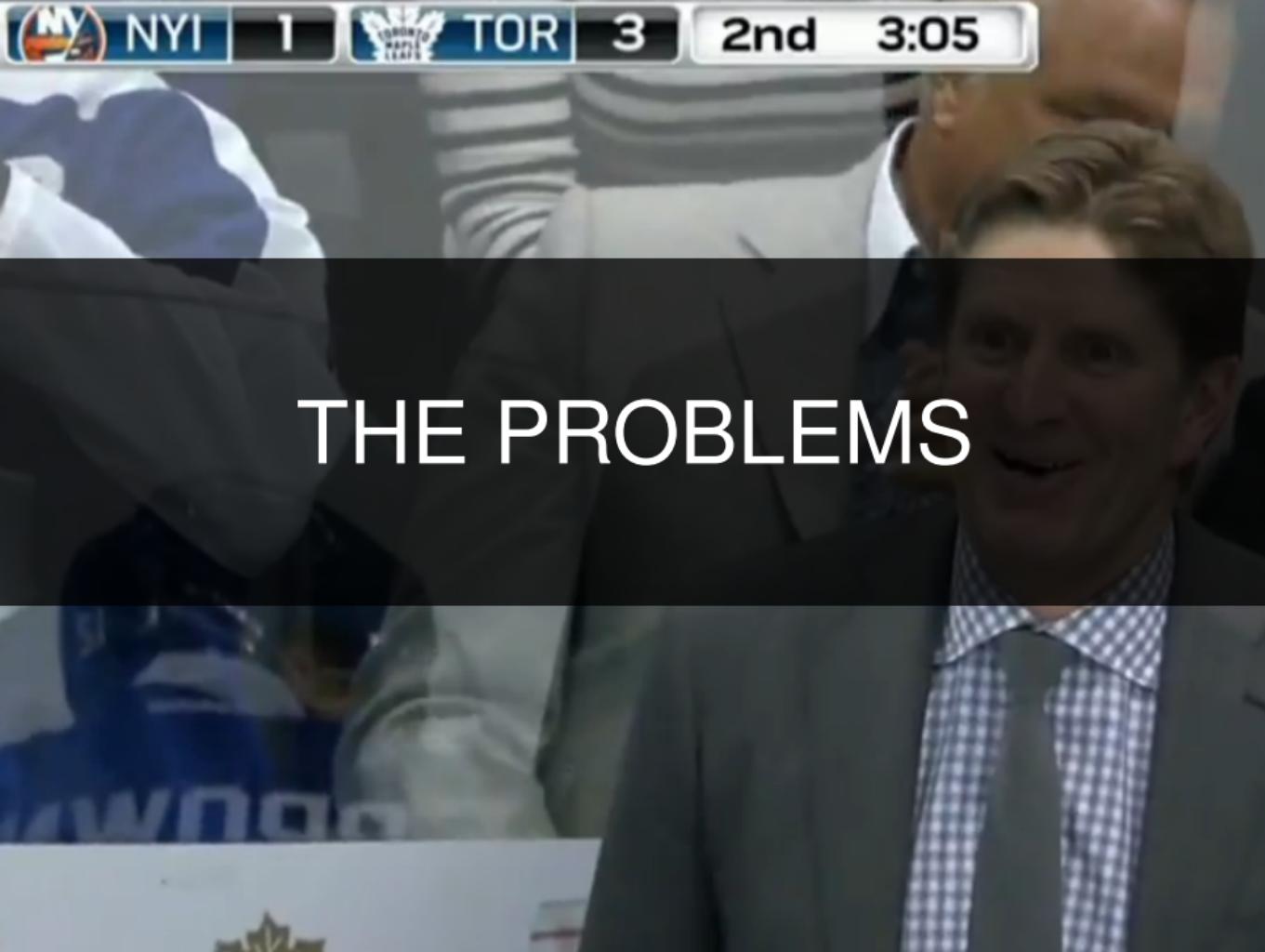
Windows binaries: r-devel: [nhlscrapr_1.8.1.zip](#), r-release: [nhlscrapr_1.8.1.zip](#), r-oldrel: [nhlscrapr_1.8.1.zip](#)

OS X binaries: r-release: [nhlscrapr_1.8.1.tgz](#), r-oldrel: [nhlscrapr_1.8.1.tgz](#)

Old sources: [nhlscrapr archive](#)

A collage of images. On the left, a NASA astronaut in a white spacesuit with a yellow helmet visor is floating in space, with Earth visible in the background. In the center, a hockey player in a white Montreal Canadiens jersey with the number 31 is sitting in a locker room. On the right, a group of people, including a man in a blue shirt and a woman in a white shirt, are looking towards the right.

HOW DOES THE FUTURE
LOOK LIKE?



NYI 1 TOR 3 2nd 3:05



THANK YOU

