

# The mseviz package

MSE with FLR/a4a course. JRC (Ispra) 25-29 November 2019

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# The performance table

perf

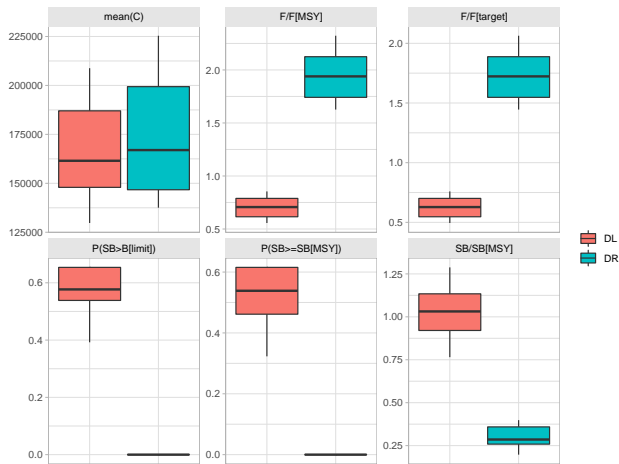
##	run	indicator	year	data	iter	name	mp
##	1:	DR	C 2041	2.236e+05	1	mean(C)	DR
##	2:	DR	C 2041	1.763e+05	2	mean(C)	DR
##	3:	DR	C 2041	1.200e+05	3	mean(C)	DR
##	4:	DR	C 2041	1.828e+05	4	mean(C)	DR
##	5:	DR	C 2041	1.937e+05	5	mean(C)	DR
##	---						
##	296:	DL	SBMSY 2041	1.210e+00	21	SB/SB[MSY]	DL
##	297:	DL	SBMSY 2041	5.598e-01	22	SB/SB[MSY]	DL
##	298:	DL	SBMSY 2041	9.381e-01	23	SB/SB[MSY]	DL
##	299:	DL	SBMSY 2041	7.220e-01	24	SB/SB[MSY]	DL
##	300:	DL	SBMSY 2041	8.410e-01	25	SB/SB[MSY]	DL

# The performance table: indicator names

	indicator	name
1	C	$\text{mean}(C)$
2	FMSY	$F/F[\text{MSY}]$
3	Ftarget	$F/F[\text{target}]$
4	PBlim	$P(SB > B[\text{limit}])$
5	PSBMSY	$P(SB \geq SB[\text{MSY}])$
6	SBMSY	$SB/SB[\text{MSY}]$

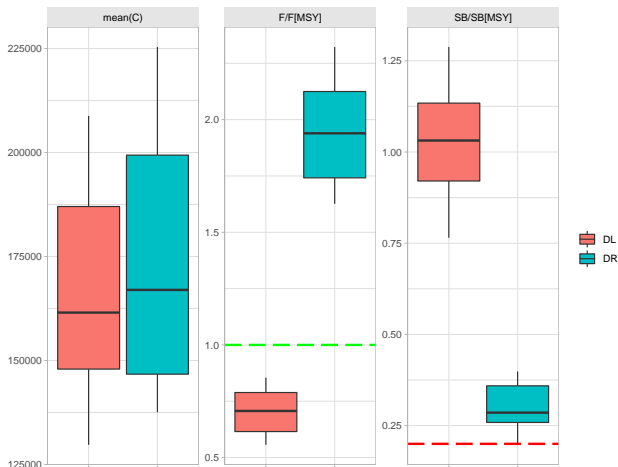
# plotBPs: Boxplot by MP for a range of indicators

## plotBPs(perf)



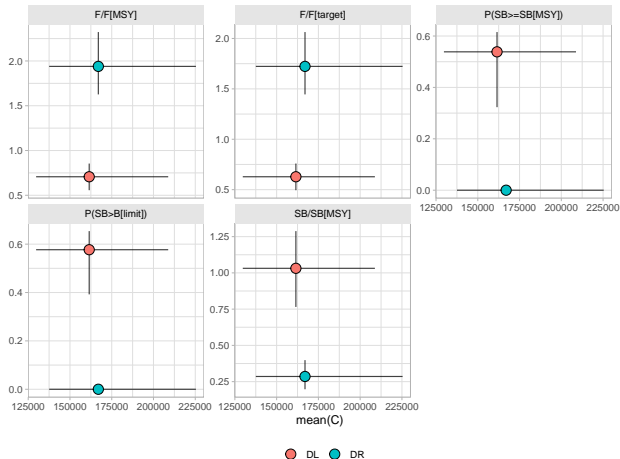
# plotBPs: Boxplot by MP for a range of indicators

```
plotBPs(perf, indicators=c("C", "FMSY", "SBMSY"),  
target=list(FMSY=1), limit=c(SBMSY=0.20))
```



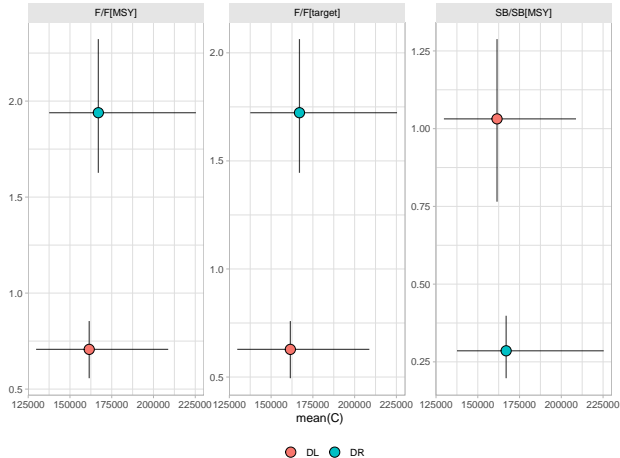
# plotT0s: Trade-offs plot by MP for a range of indicators

## plotT0s(perf)



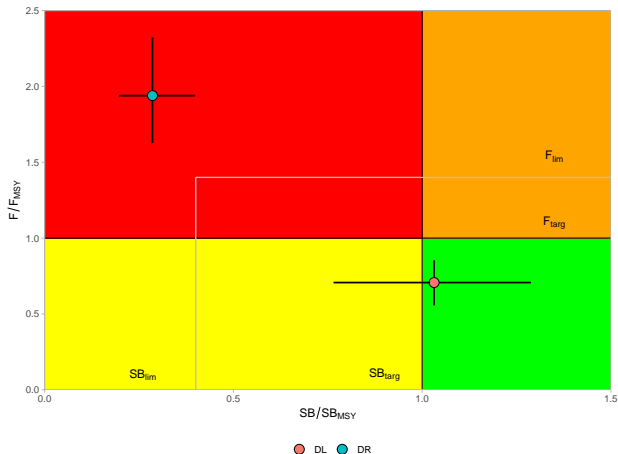
# plotT0s: Trade-offs plot by MP for a range of indicators

```
plotT0s(perf, x="C", y=c("FMSY", "Ftarget", "SBMSY"))
```



# kobeMPs: Performance on the Kobe dimensions

kobeMPs(perf, x="SBMSY", y="FMSY")

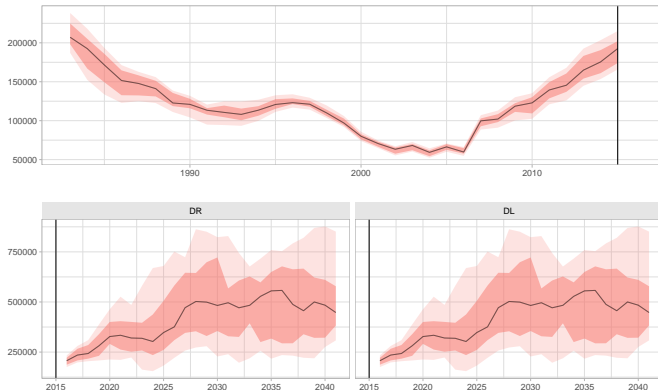




# plotOMruns: Time series for a given statistic

## SSB

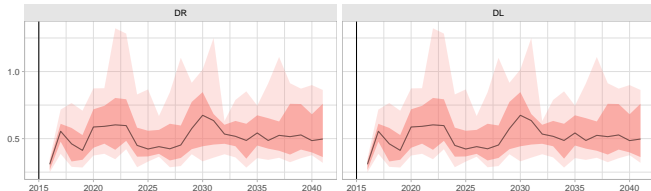
```
plotOMruns(window(ssb(stock(stk.om))), end=2015),  
  FLQuants(DR=ssb(stock(res.dr)),  
    DL=ssb(stock(res.dr))))
```



# plotOMruns: Time series for a given statistic

F

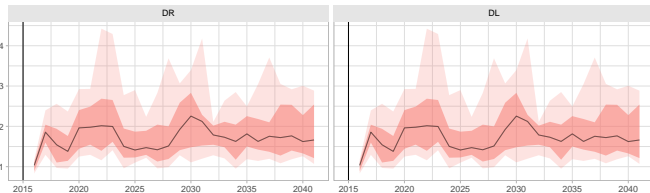
```
plotOMruns(window(fbar(stock(stk.om))), end=2015),  
  FLQuants(DR=fbar(stock(res.dr)),  
    DL=fbar(stock(res.dr))))
```



# plotOMruns: Time series for a given statistic

F/FMSY

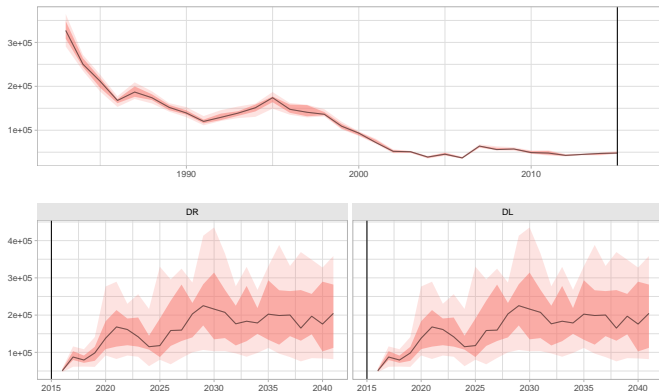
```
plotOMruns(window(fbar(stock(stk.om)), end=2015) / refpts(stk.om))  
  FLQuants(DR=fbar(stock(res.dr)) / refpts(res.dr)["msy","harvest"  
  DL=fbar(stock(res.dr)) / refpts(res.dr)["msy","harvest"]]))
```



# plotOMruns: Time series for a given statistic

C

```
plotOMruns(window(catch(stock(stk.om))), end=2015),  
  FLQuants(DR=catch(stock(res.dr)),  
    DL=catch(stock(res.dr))))
```



# SUMMARY table

```
print(summTable(perf), size="\\fontsize{6pt}{8pt}\\selectfont",  
      sanitize.text.function=function(x){x})
```

	mp	$P(SB \geq SB_{MSY})$	$F/F_{MSY}$	$F/F_{target}$	$SB/SB_{MSY}$	$P(SB > B_{limit})$
1	DL	0.5 (0.3-0.6)	0.7	0.62	1.0 (0.8-1.3)	0.56
2	DR	0.0 (0.0-0.0)	2	1.7	0.3 (0.2-0.4)	0

# Developing an agreement: IOTC guidelines

- IOTC 2016 Scientific Committee Report (Pages 88-102)