Summary of validation results

<center>April 08, 2022</center>

Introduction and notation

Simulated power intervals. The Monte Carlo simulations produce a 95% confidence interval, and we check whether that interval contains the `PUMP` estimates. In other words, we check if $\hat{p}_{pump}$ is within $\hat{p}_{sim} \pm 1.96\sqrt{0.25/5000}$.

Simulated power point estimates. We compare the point estimates from the simulations to `PUMP`. To do so, we calculate the absolute difference between the power estimates from the simulations and from `PUMP`:

$$b_{sim} = |\hat{p}_{sim} - \hat{p}_{pump}|.$$

PowerUpR power point estimates. We compare the point estimates from the `PowerUpR` to `PUMP`. This comparison is only conducted for individual, unadjusted power. Similar to the last metric, we calculate the absolute difference between the power estimates from `PowerUpR` and from `PUMP`:

$$b_{pow} = |\hat{p}_{pow} - \hat{p}_{pump}|.$$

PUMP mdes point estimates. We summarize the MDES performance by calculating the absolute difference between the `PUMP` estimate and the target MDES.

$$b_{mdes} = |\hat{m}_{pump} - \hat{m}_{target}|.$$

<center>1</center>

Summary of validation coverage results

d_m	MTP	power_type	cover
d2.1_m2fc	BF	D1indiv	1
d2.1_m2fc	BF	indiv.mean	1
d2.1_m2fc	BF	min1	1
d2.1_m2fc	BF	complete	1
d2.1_m2fc	BF	D2indiv	1
d2.1_m2fc	BF	D3indiv	1
d2.1_m2fc	BF	min2	1
d2.1_m2fc	BH	D1indiv	1
d2.1_m2fc	BH	indiv.mean	1
d2.1_m2fc	BH	min1	1
d2.1_m2fc	BH	complete	1
d2.1_m2fc	BH	D2indiv	1
d2.1_m2fc	BH	D3indiv	1
d2.1_m2fc	BH	min2	1
d2.1_m2fc	HO	D1indiv	1
d2.1_m2fc	HO	indiv.mean	1
d2.1_m2fc	HO	min1	1
d2.1_m2fc	HO	complete	1
d2.1_m2fc	HO	D2indiv	1
d2.1_m2fc	HO	D3indiv	1
d2.1_m2fc	HO	min2	1
d2.1_m2fc	None	D1indiv	1
d2.1_m2fc	None	indiv.mean	1
d2.1_m2fc	None	min1	–
d2.1_m2fc	None	complete	–
d2.1_m2fc	None	D2indiv	1
d2.1_m2fc	None	D3indiv	1
d2.1_m2fc	None	min2	–

d_m	MTP	power_type	cover
d2.1_m2ff	BF	D1indiv	1
d2.1_m2ff	BF	indiv.mean	1
d2.1_m2ff	BF	min1	1
d2.1_m2ff	BF	complete	1
d2.1_m2ff	BF	D2indiv	1
d2.1_m2ff	BF	D3indiv	1
d2.1_m2ff	BF	min2	1
d2.1_m2ff	BH	D1indiv	1
d2.1_m2ff	BH	indiv.mean	1
d2.1_m2ff	BH	min1	1
d2.1_m2ff	BH	complete	1
d2.1_m2ff	BH	D2indiv	1
d2.1_m2ff	BH	D3indiv	1
d2.1_m2ff	BH	min2	1
d2.1_m2ff	HO	D1indiv	1
d2.1_m2ff	HO	indiv.mean	1
d2.1_m2ff	HO	min1	1
d2.1_m2ff	HO	complete	1
d2.1_m2ff	HO	D2indiv	1
d2.1_m2ff	HO	D3indiv	1
d2.1_m2ff	HO	min2	1
d2.1_m2ff	None	D1indiv	1
d2.1_m2ff	None	indiv.mean	1
d2.1_m2ff	None	min1	–
d2.1_m2ff	None	complete	–
d2.1_m2ff	None	D2indiv	1
d2.1_m2ff	None	D3indiv	1
d2.1_m2ff	None	min2	–

d_m	MTP	power_type	cover
d2.1_m2fr	BF	D1indiv	0.875
d2.1_m2fr	BF	indiv.mean	0.875
d2.1_m2fr	BF	min1	0.750
d2.1_m2fr	BF	complete	0.875
d2.1_m2fr	BF	D2indiv	0.875
d2.1_m2fr	BF	D3indiv	0.875
d2.1_m2fr	BF	min2	0.750
d2.1_m2fr	BH	D1indiv	0.750
d2.1_m2fr	BH	indiv.mean	0.750
d2.1_m2fr	BH	min1	0.750
d2.1_m2fr	BH	complete	1.000
d2.1_m2fr	BH	D2indiv	0.875
d2.1_m2fr	BH	D3indiv	0.750
d2.1_m2fr	BH	min2	0.750
d2.1_m2fr	HO	D1indiv	0.750
d2.1_m2fr	HO	indiv.mean	0.750
d2.1_m2fr	HO	min1	0.750
d2.1_m2fr	HO	complete	1.000
d2.1_m2fr	HO	D2indiv	0.875
d2.1_m2fr	HO	D3indiv	0.750
d2.1_m2fr	HO	min2	0.750
d2.1_m2fr	None	D1indiv	0.750
d2.1_m2fr	None	indiv.mean	0.750
d2.1_m2fr	None	min1	–
d2.1_m2fr	None	complete	–
d2.1_m2fr	None	D2indiv	0.875
d2.1_m2fr	None	D3indiv	0.750
d2.1_m2fr	None	min2	–

d_m	MTP	power_type	cover
d2.2_m2rc	BF	D1indiv	1
d2.2_m2rc	BF	indiv.mean	1
d2.2_m2rc	BF	min1	1
d2.2_m2rc	BF	complete	–
d2.2_m2rc	BF	D2indiv	1
d2.2_m2rc	BF	D3indiv	1
d2.2_m2rc	BF	min2	1
d2.2_m2rc	BH	D1indiv	1
d2.2_m2rc	BH	indiv.mean	1
d2.2_m2rc	BH	min1	1
d2.2_m2rc	BH	complete	–
d2.2_m2rc	BH	D2indiv	1
d2.2_m2rc	BH	D3indiv	1
d2.2_m2rc	BH	min2	1
d2.2_m2rc	HO	D1indiv	1
d2.2_m2rc	HO	indiv.mean	1
d2.2_m2rc	HO	min1	1
d2.2_m2rc	HO	complete	–
d2.2_m2rc	HO	D2indiv	1
d2.2_m2rc	HO	D3indiv	1
d2.2_m2rc	HO	min2	1
d2.2_m2rc	None	D1indiv	1
d2.2_m2rc	None	indiv.mean	1
d2.2_m2rc	None	min1	–
d2.2_m2rc	None	complete	–
d2.2_m2rc	None	D2indiv	1
d2.2_m2rc	None	D3indiv	1
d2.2_m2rc	None	min2	–

d_m	MTP	power_type	cover
d3.1_m3rr2rr	BF	D1indiv	1
d3.1_m3rr2rr	BF	indiv.mean	1
d3.1_m3rr2rr	BF	min1	1
d3.1_m3rr2rr	BF	complete	–
d3.1_m3rr2rr	BF	D2indiv	1
d3.1_m3rr2rr	BF	D3indiv	1
d3.1_m3rr2rr	BF	min2	1
d3.1_m3rr2rr	BH	D1indiv	1
d3.1_m3rr2rr	BH	indiv.mean	1
d3.1_m3rr2rr	BH	min1	1
d3.1_m3rr2rr	BH	complete	–
d3.1_m3rr2rr	BH	D2indiv	1
d3.1_m3rr2rr	BH	D3indiv	1
d3.1_m3rr2rr	BH	min2	1
d3.1_m3rr2rr	HO	D1indiv	1
d3.1_m3rr2rr	HO	indiv.mean	1
d3.1_m3rr2rr	HO	min1	1
d3.1_m3rr2rr	HO	complete	–
d3.1_m3rr2rr	HO	D2indiv	1
d3.1_m3rr2rr	HO	D3indiv	1
d3.1_m3rr2rr	HO	min2	1
d3.1_m3rr2rr	None	D1indiv	1
d3.1_m3rr2rr	None	indiv.mean	1
d3.1_m3rr2rr	None	min1	–
d3.1_m3rr2rr	None	complete	–
d3.1_m3rr2rr	None	D2indiv	1
d3.1_m3rr2rr	None	D3indiv	1
d3.1_m3rr2rr	None	min2	–

d_m	MTP	power_type	cover
d3.2_m3ff2rc	BF	D1indiv	1
d3.2_m3ff2rc	BF	indiv.mean	1
d3.2_m3ff2rc	BF	min1	1
d3.2_m3ff2rc	BF	complete	–
d3.2_m3ff2rc	BF	D2indiv	1
d3.2_m3ff2rc	BF	D3indiv	1
d3.2_m3ff2rc	BF	min2	1
d3.2_m3ff2rc	BH	D1indiv	1
d3.2_m3ff2rc	BH	indiv.mean	1
d3.2_m3ff2rc	BH	min1	1
d3.2_m3ff2rc	BH	complete	–
d3.2_m3ff2rc	BH	D2indiv	1
d3.2_m3ff2rc	BH	D3indiv	1
d3.2_m3ff2rc	BH	min2	1
d3.2_m3ff2rc	HO	D1indiv	1
d3.2_m3ff2rc	HO	indiv.mean	1
d3.2_m3ff2rc	HO	min1	1
d3.2_m3ff2rc	HO	complete	–
d3.2_m3ff2rc	HO	D2indiv	1
d3.2_m3ff2rc	HO	D3indiv	1
d3.2_m3ff2rc	HO	min2	1
d3.2_m3ff2rc	None	D1indiv	1
d3.2_m3ff2rc	None	indiv.mean	1
d3.2_m3ff2rc	None	min1	–
d3.2_m3ff2rc	None	complete	–
d3.2_m3ff2rc	None	D2indiv	1
d3.2_m3ff2rc	None	D3indiv	1
d3.2_m3ff2rc	None	min2	–

d_m	MTP	power_type	cover
d3.2_m3rr2rc	BF	D1indiv	0.800
d3.2_m3rr2rc	BF	indiv.mean	0.867
d3.2_m3rr2rc	BF	min1	0.600
d3.2_m3rr2rc	BF	complete	0.867
d3.2_m3rr2rc	BF	D2indiv	0.867
d3.2_m3rr2rc	BF	D3indiv	0.867
d3.2_m3rr2rc	BF	min2	0.867
d3.2_m3rr2rc	BH	D1indiv	0.867
d3.2_m3rr2rc	BH	indiv.mean	0.867
d3.2_m3rr2rc	BH	min1	0.733
d3.2_m3rr2rc	BH	complete	0.867
d3.2_m3rr2rc	BH	D2indiv	0.867
d3.2_m3rr2rc	BH	D3indiv	0.867
d3.2_m3rr2rc	BH	min2	0.867
d3.2_m3rr2rc	HO	D1indiv	0.867
d3.2_m3rr2rc	HO	indiv.mean	0.867
d3.2_m3rr2rc	HO	min1	0.667
d3.2_m3rr2rc	HO	complete	0.867
d3.2_m3rr2rc	HO	D2indiv	0.867
d3.2_m3rr2rc	HO	D3indiv	0.867
d3.2_m3rr2rc	HO	min2	0.867
d3.2_m3rr2rc	None	D1indiv	0.867
d3.2_m3rr2rc	None	indiv.mean	0.867
d3.2_m3rr2rc	None	min1	–
d3.2_m3rr2rc	None	complete	–
d3.2_m3rr2rc	None	D2indiv	0.867
d3.2_m3rr2rc	None	D3indiv	0.867
d3.2_m3rr2rc	None	min2	–

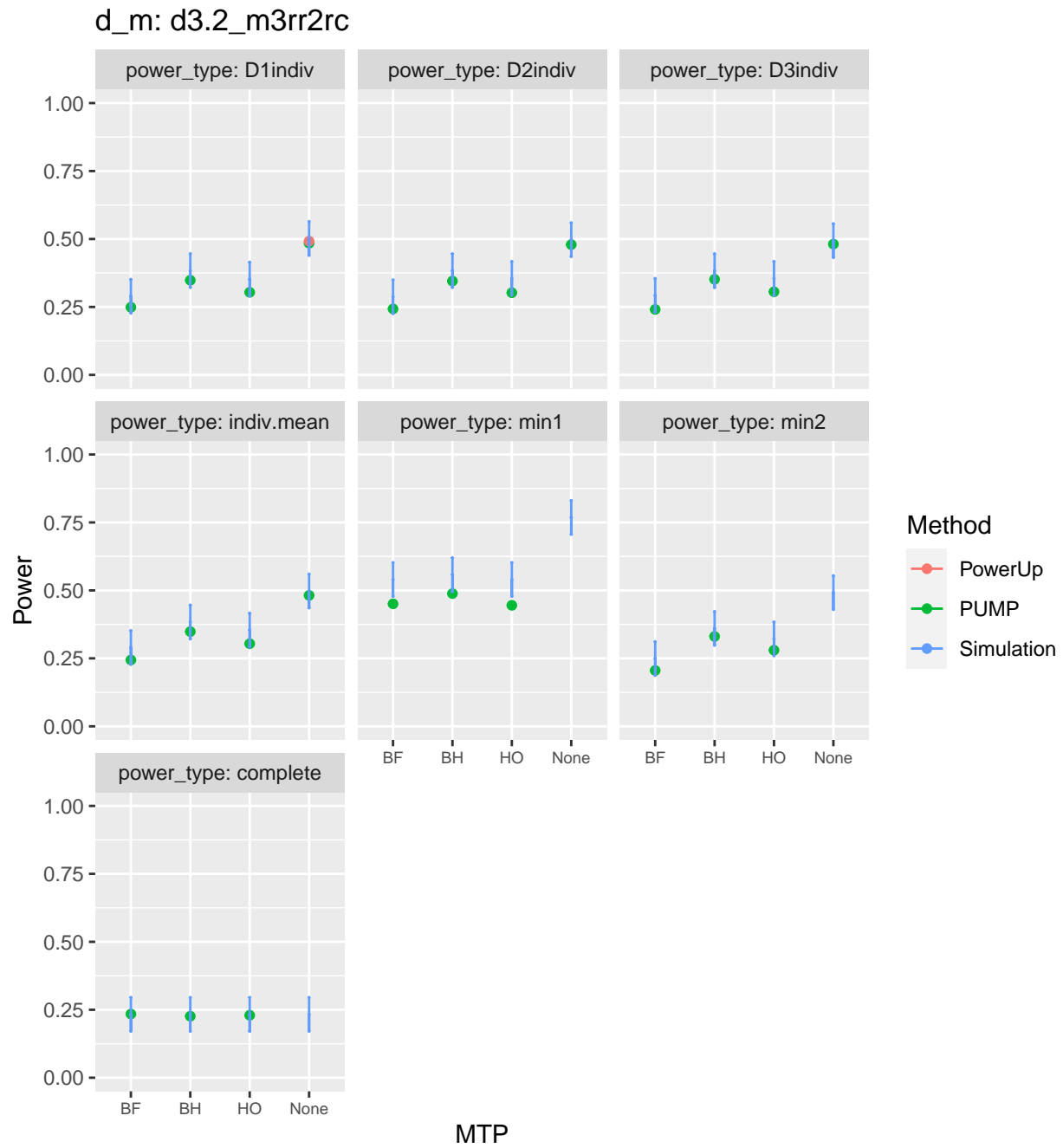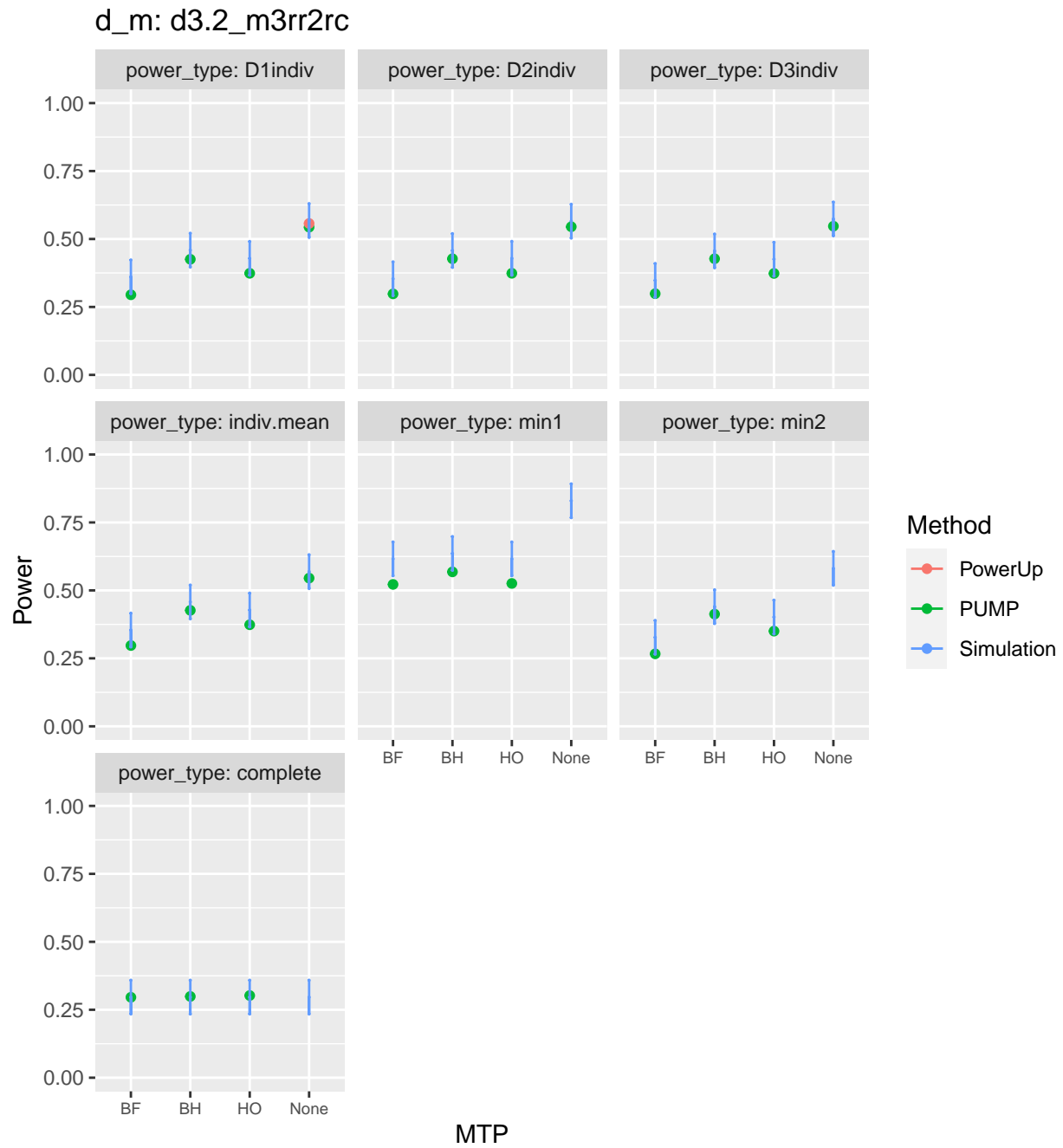| d_m	MTP	power_type	cover
d3.3_m3rc2rc	BF	D1indiv	1
d3.3_m3rc2rc	BF	indiv.mean	1
d3.3_m3rc2rc	BF	min1	1
d3.3_m3rc2rc	BF	complete	–
d3.3_m3rc2rc	BF	D2indiv	1
d3.3_m3rc2rc	BF	D3indiv	1
d3.3_m3rc2rc	BF	min2	1
d3.3_m3rc2rc	BH	D1indiv	1
d3.3_m3rc2rc	BH	indiv.mean	1
d3.3_m3rc2rc	BH	min1	1
d3.3_m3rc2rc	BH	complete	–
d3.3_m3rc2rc	BH	D2indiv	1
d3.3_m3rc2rc	BH	D3indiv	1
d3.3_m3rc2rc	BH	min2	1
d3.3_m3rc2rc	HO	D1indiv	1
d3.3_m3rc2rc	HO	indiv.mean	1
d3.3_m3rc2rc	HO	min1	1
d3.3_m3rc2rc	HO	complete	–
d3.3_m3rc2rc	HO	D2indiv	1
d3.3_m3rc2rc	HO	D3indiv	1
d3.3_m3rc2rc	HO	min2	1
d3.3_m3rc2rc	None	D1indiv	1
d3.3_m3rc2rc	None	indiv.mean	1
d3.3_m3rc2rc	None	min1	–
d3.3_m3rc2rc	None	complete	–
d3.3_m3rc2rc	None	D2indiv	1
d3.3_m3rc2rc	None	D3indiv	1
d3.3_m3rc2rc	None	min2	–

Coverage discrepancies

We summarize below the scenarios where the simulation intervals do not cover the PUMP value. For brevity, we only display results for Bonferroni adjustments.

```
## # A tibble: 8 x 13
##    d_m     numZero     J     K  nbar omega.2 omega.3  R2.1  R2.2  R2.3 ICC.2 ICC.3
##    <chr>     <int> <dbl> <dbl> <dbl>   <dbl>   <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
## 1 d2.1_~        0    20     1    50       0      NA   0.1  NA    NA     0.2  NA
## 2 d2.1_~        0    20     1    50     0.1      NA   0.1  NA    NA     0      NA
## 3 d3.2_~        0    30    10    50      NA       0   0.1   0.1  NA     0.2   0.2
## 4 d3.2_~        0    30    10    50      NA     0.1   0.1   0.1  NA     0     0.2
## 5 d3.2_~        0    30    10    50      NA     0.1   0.1   0.1  NA     0.2   0
## 6 d3.2_~        0    30    10    50      NA     0.1   0.1   0.1  NA     0.2   0.7
## 7 d3.2_~        0    30    10    50      NA     0.1   0.1   0.6  NA     0.2   0.2
## 8 d3.2_~        0    50    10    50      NA     0.1   0.1   0.6  NA     0.2   0.2
## # ... with 1 more variable: rho <dbl>
```

d_m	MTP	type	omega.2	omega.3	ICC.2	ICC.3	pump	pow	sim	low	up
d2.1_m2fr	BF	D1indiv	0.0	–	0.2	–	0.382	–	0.315	0.253	0.377
d2.1_m2fr	BF	D2indiv	0.0	–	0.2	–	0.382	–	0.311	0.249	0.373
d2.1_m2fr	BF	D3indiv	0.0	–	0.2	–	0.387	–	0.309	0.247	0.371
d2.1_m2fr	BF	indiv.mean	0.0	–	0.2	–	0.384	–	0.312	0.250	0.374
d2.1_m2fr	BF	min1	0.0	–	0.2	–	0.633	–	0.547	0.485	0.609
d2.1_m2fr	BF	min2	0.0	–	0.2	–	0.364	–	0.281	0.219	0.343
d2.1_m2fr	BF	complete	0.0	–	0.2	–	0.340	–	0.276	0.214	0.338
d2.1_m2fr	BF	min1	0.1	–	0.0	–	0.515	–	0.438	0.376	0.500
d2.1_m2fr	BF	min2	0.1	–	0.0	–	0.258	–	0.196	0.134	0.258

d_m	MTP	type	omega.2	omega.3	ICC.2	ICC.3	pump	pow	sim	low	up
d3.2_m3rr2rc	BF	D1indiv	–	0.0	0.2	0.2	0.333	–	0.244	0.182	0.306
d3.2_m3rr2rc	BF	D2indiv	–	0.0	0.2	0.2	0.326	–	0.247	0.185	0.309
d3.2_m3rr2rc	BF	D3indiv	–	0.0	0.2	0.2	0.327	–	0.250	0.188	0.312
d3.2_m3rr2rc	BF	indiv.mean	–	0.0	0.2	0.2	0.329	–	0.247	0.185	0.309
d3.2_m3rr2rc	BF	min1	–	0.0	0.2	0.2	0.561	–	0.469	0.407	0.531
d3.2_m3rr2rc	BF	min2	–	0.0	0.2	0.2	0.304	–	0.208	0.146	0.270
d3.2_m3rr2rc	BF	complete	–	0.0	0.2	0.2	0.330	–	0.235	0.173	0.297
d3.2_m3rr2rc	BF	min1	–	0.1	0.0	0.2	0.654	–	0.728	0.666	0.790
d3.2_m3rr2rc	BF	D1indiv	–	0.1	0.2	0.0	0.322	–	0.233	0.171	0.295
d3.2_m3rr2rc	BF	D2indiv	–	0.1	0.2	0.0	0.319	–	0.246	0.184	0.308
d3.2_m3rr2rc	BF	D3indiv	–	0.1	0.2	0.0	0.326	–	0.240	0.178	0.302
d3.2_m3rr2rc	BF	indiv.mean	–	0.1	0.2	0.0	0.322	–	0.239	0.177	0.301
d3.2_m3rr2rc	BF	min1	–	0.1	0.2	0.0	0.557	–	0.448	0.386	0.510
d3.2_m3rr2rc	BF	min2	–	0.1	0.2	0.0	0.295	–	0.206	0.144	0.268
d3.2_m3rr2rc	BF	complete	–	0.1	0.2	0.0	0.320	–	0.233	0.171	0.295
d3.2_m3rr2rc	BF	min1	–	0.1	0.2	0.7	0.146	–	0.214	0.152	0.276
d3.2_m3rr2rc	BF	min1	–	0.1	0.2	0.2	0.450	–	0.540	0.478	0.602
d3.2_m3rr2rc	BF	D1indiv	–	0.1	0.2	0.2	0.295	–	0.361	0.299	0.423
d3.2_m3rr2rc	BF	min1	–	0.1	0.2	0.2	0.522	–	0.616	0.554	0.678

d_m: d3.2_m3rr2rc

d_m: d3.2_m3rr2rc

d_m: d3.2_m3rr2rc
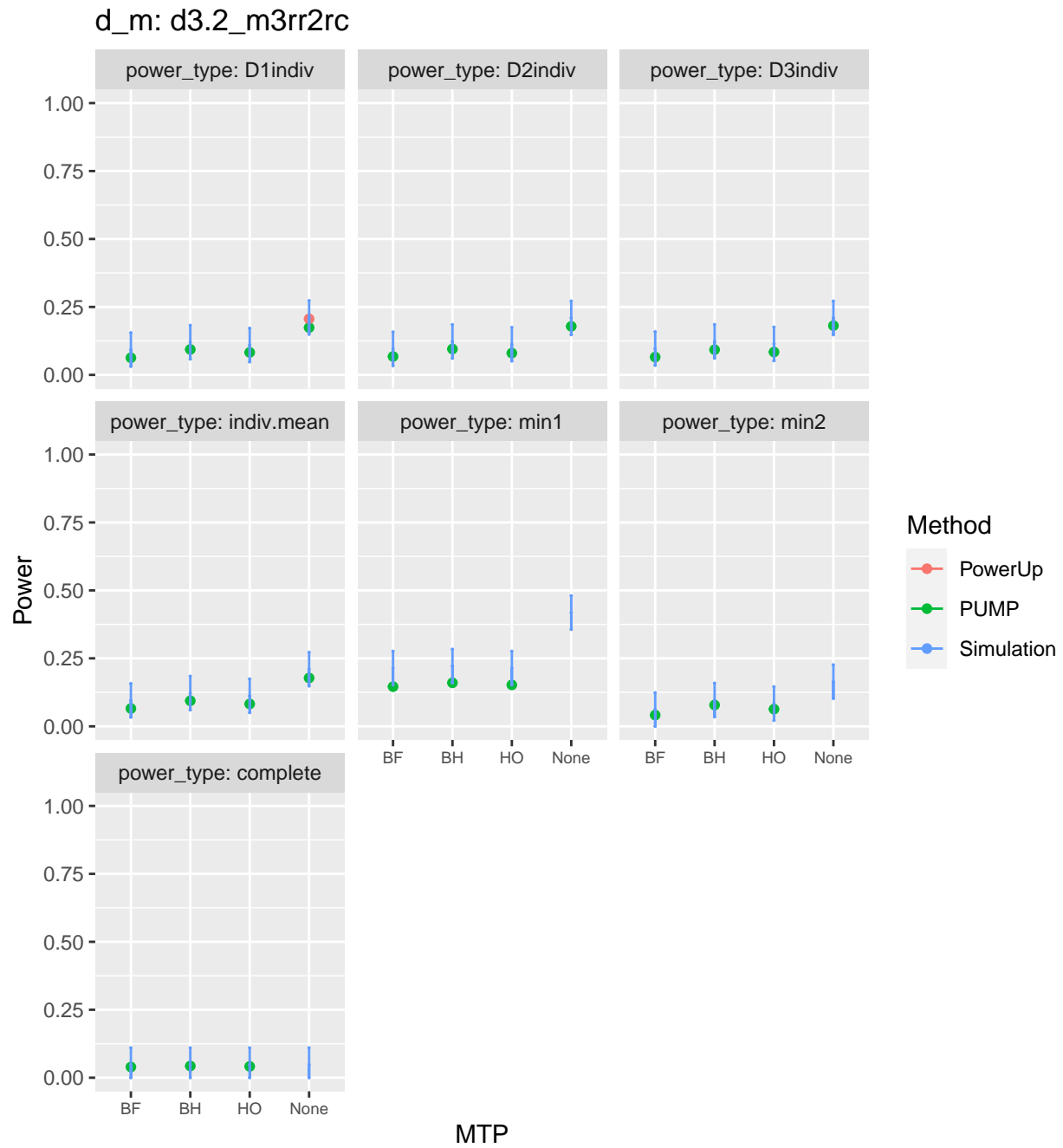
Summary of validation "bias" results

d_m	MTP	power_type	mean.b.sim	mean.b.pow
d2.1_m2fc	BF	D1indiv	0.007	–
d2.1_m2fc	BF	indiv.mean	0.004	–
d2.1_m2fc	BF	min1	0.005	–
d2.1_m2fc	BF	complete	0.006	–
d2.1_m2fc	BF	D2indiv	0.006	–
d2.1_m2fc	BF	D3indiv	0.005	–
d2.1_m2fc	BF	min2	0.004	–
d2.1_m2fc	BH	D1indiv	0.004	–
d2.1_m2fc	BH	indiv.mean	0.006	–
d2.1_m2fc	BH	min1	0.006	–
d2.1_m2fc	BH	complete	0.007	–
d2.1_m2fc	BH	D2indiv	0.005	–
d2.1_m2fc	BH	D3indiv	0.007	–
d2.1_m2fc	BH	min2	0.005	–
d2.1_m2fc	HO	D1indiv	0.005	–
d2.1_m2fc	HO	indiv.mean	0.006	–
d2.1_m2fc	HO	min1	0.005	–
d2.1_m2fc	HO	complete	0.008	–
d2.1_m2fc	HO	D2indiv	0.005	–
d2.1_m2fc	HO	D3indiv	0.008	–
d2.1_m2fc	HO	min2	0.006	–
d2.1_m2fc	None	D1indiv	0.006	0.002
d2.1_m2fc	None	indiv.mean	0.005	–
d2.1_m2fc	None	D2indiv	0.006	–
d2.1_m2fc	None	D3indiv	0.006	–

d_m	MTP	power_type	mean.b.sim	mean.b.pow
d2.1_m2ff	BF	D1indiv	0.009	–
d2.1_m2ff	BF	indiv.mean	0.007	–
d2.1_m2ff	BF	min1	0.008	–
d2.1_m2ff	BF	complete	0.004	–
d2.1_m2ff	BF	D2indiv	0.009	–
d2.1_m2ff	BF	D3indiv	0.006	–
d2.1_m2ff	BF	min2	0.009	–
d2.1_m2ff	BH	D1indiv	0.006	–
d2.1_m2ff	BH	indiv.mean	0.005	–
d2.1_m2ff	BH	min1	0.007	–
d2.1_m2ff	BH	complete	0.004	–
d2.1_m2ff	BH	D2indiv	0.008	–
d2.1_m2ff	BH	D3indiv	0.007	–
d2.1_m2ff	BH	min2	0.005	–
d2.1_m2ff	HO	D1indiv	0.006	–
d2.1_m2ff	HO	indiv.mean	0.005	–
d2.1_m2ff	HO	min1	0.010	–
d2.1_m2ff	HO	complete	0.006	–
d2.1_m2ff	HO	D2indiv	0.006	–
d2.1_m2ff	HO	D3indiv	0.004	–
d2.1_m2ff	HO	min2	0.005	–
d2.1_m2ff	None	D1indiv	0.010	0.002
d2.1_m2ff	None	indiv.mean	0.010	–
d2.1_m2ff	None	D2indiv	0.010	–
d2.1_m2ff	None	D3indiv	0.004	–

d_m	MTP	power_type	mean.b.sim	mean.b.pow
d2.1_m2fr	BF	D1indiv	0.020	–
d2.1_m2fr	BF	indiv.mean	0.019	–
d2.1_m2fr	BF	min1	0.024	–
d2.1_m2fr	BF	complete	0.013	–
d2.1_m2fr	BF	D2indiv	0.022	–
d2.1_m2fr	BF	D3indiv	0.017	–
d2.1_m2fr	BF	min2	0.015	–
d2.1_m2fr	BH	D1indiv	0.011	–
d2.1_m2fr	BH	indiv.mean	0.011	–
d2.1_m2fr	BH	min1	0.016	–
d2.1_m2fr	BH	complete	0.020	–
d2.1_m2fr	BH	D2indiv	0.019	–
d2.1_m2fr	BH	D3indiv	0.012	–
d2.1_m2fr	BH	min2	0.010	–
d2.1_m2fr	HO	D1indiv	0.014	–
d2.1_m2fr	HO	indiv.mean	0.013	–
d2.1_m2fr	HO	min1	0.022	–
d2.1_m2fr	HO	complete	0.019	–
d2.1_m2fr	HO	D2indiv	0.022	–
d2.1_m2fr	HO	D3indiv	0.012	–
d2.1_m2fr	HO	min2	0.014	–
d2.1_m2fr	None	D1indiv	0.013	0.013
d2.1_m2fr	None	indiv.mean	0.011	–
d2.1_m2fr	None	D2indiv	0.021	–
d2.1_m2fr	None	D3indiv	0.010	–

d_m	MTP	power_type	mean.b.sim	mean.b.pow
d2.2_m2rc	BF	D1indiv	0.009	–
d2.2_m2rc	BF	indiv.mean	0.007	–
d2.2_m2rc	BF	min1	0.011	–
d2.2_m2rc	BF	complete	0.006	–
d2.2_m2rc	BF	D2indiv	0.006	–
d2.2_m2rc	BF	D3indiv	0.009	–
d2.2_m2rc	BF	min2	0.005	–
d2.2_m2rc	BH	D1indiv	0.007	–
d2.2_m2rc	BH	indiv.mean	0.007	–
d2.2_m2rc	BH	min1	0.009	–
d2.2_m2rc	BH	complete	0.008	–
d2.2_m2rc	BH	D2indiv	0.007	–
d2.2_m2rc	BH	D3indiv	0.007	–
d2.2_m2rc	BH	min2	0.006	–
d2.2_m2rc	HO	D1indiv	0.008	–
d2.2_m2rc	HO	indiv.mean	0.007	–
d2.2_m2rc	HO	min1	0.010	–
d2.2_m2rc	HO	complete	0.007	–
d2.2_m2rc	HO	D2indiv	0.007	–
d2.2_m2rc	HO	D3indiv	0.008	–
d2.2_m2rc	HO	min2	0.006	–
d2.2_m2rc	None	D1indiv	0.009	0.006
d2.2_m2rc	None	indiv.mean	0.006	–
d2.2_m2rc	None	D2indiv	0.006	–
d2.2_m2rc	None	D3indiv	0.008	–

d_m	MTP	power_type	mean.b.sim	mean.b.pow
d3.1_m3rr2rr	BF	D1indiv	0.008	–
d3.1_m3rr2rr	BF	indiv.mean	0.008	–
d3.1_m3rr2rr	BF	min1	0.013	–
d3.1_m3rr2rr	BF	complete	0.008	–
d3.1_m3rr2rr	BF	D2indiv	0.008	–
d3.1_m3rr2rr	BF	D3indiv	0.008	–
d3.1_m3rr2rr	BF	min2	0.006	–
d3.1_m3rr2rr	BH	D1indiv	0.007	–
d3.1_m3rr2rr	BH	indiv.mean	0.006	–
d3.1_m3rr2rr	BH	min1	0.011	–
d3.1_m3rr2rr	BH	complete	0.009	–
d3.1_m3rr2rr	BH	D2indiv	0.008	–
d3.1_m3rr2rr	BH	D3indiv	0.007	–
d3.1_m3rr2rr	BH	min2	0.005	–
d3.1_m3rr2rr	HO	D1indiv	0.007	–
d3.1_m3rr2rr	HO	indiv.mean	0.007	–
d3.1_m3rr2rr	HO	min1	0.013	–
d3.1_m3rr2rr	HO	complete	0.008	–
d3.1_m3rr2rr	HO	D2indiv	0.007	–
d3.1_m3rr2rr	HO	D3indiv	0.008	–
d3.1_m3rr2rr	HO	min2	0.006	–
d3.1_m3rr2rr	None	D1indiv	0.006	0.006
d3.1_m3rr2rr	None	indiv.mean	0.006	–
d3.1_m3rr2rr	None	D2indiv	0.004	–
d3.1_m3rr2rr	None	D3indiv	0.006	–

d_m	MTP	power_type	mean.b.sim	mean.b.pow
d3.2_m3ff2rc	BF	D1indiv	0.003	–
d3.2_m3ff2rc	BF	indiv.mean	0.003	–
d3.2_m3ff2rc	BF	min1	0.004	–
d3.2_m3ff2rc	BF	complete	0.004	–
d3.2_m3ff2rc	BF	D2indiv	0.005	–
d3.2_m3ff2rc	BF	D3indiv	0.003	–
d3.2_m3ff2rc	BF	min2	0.002	–
d3.2_m3ff2rc	BH	D1indiv	0.004	–
d3.2_m3ff2rc	BH	indiv.mean	0.004	–
d3.2_m3ff2rc	BH	min1	0.004	–
d3.2_m3ff2rc	BH	complete	0.004	–
d3.2_m3ff2rc	BH	D2indiv	0.005	–
d3.2_m3ff2rc	BH	D3indiv	0.004	–
d3.2_m3ff2rc	BH	min2	0.004	–
d3.2_m3ff2rc	HO	D1indiv	0.005	–
d3.2_m3ff2rc	HO	indiv.mean	0.006	–
d3.2_m3ff2rc	HO	min1	0.006	–
d3.2_m3ff2rc	HO	complete	0.005	–
d3.2_m3ff2rc	HO	D2indiv	0.008	–
d3.2_m3ff2rc	HO	D3indiv	0.006	–
d3.2_m3ff2rc	HO	min2	0.008	–
d3.2_m3ff2rc	None	D1indiv	0.006	0.006
d3.2_m3ff2rc	None	indiv.mean	0.003	–
d3.2_m3ff2rc	None	D2indiv	0.004	–
d3.2_m3ff2rc	None	D3indiv	0.004	–

d_m	MTP	power_type	mean.b.sim	mean.b.pow
d3.2_m3rr2rc	BF	D1indiv	0.020	–
d3.2_m3rr2rc	BF	indiv.mean	0.023	–
d3.2_m3rr2rc	BF	min1	0.031	–
d3.2_m3rr2rc	BF	complete	0.006	–
d3.2_m3rr2rc	BF	D2indiv	0.022	–
d3.2_m3rr2rc	BF	D3indiv	0.023	–
d3.2_m3rr2rc	BF	min2	0.020	–
d3.2_m3rr2rc	BH	D1indiv	0.018	–
d3.2_m3rr2rc	BH	indiv.mean	0.017	–
d3.2_m3rr2rc	BH	min1	0.034	–
d3.2_m3rr2rc	BH	complete	0.006	–
d3.2_m3rr2rc	BH	D2indiv	0.017	–
d3.2_m3rr2rc	BH	D3indiv	0.016	–
d3.2_m3rr2rc	BH	min2	0.011	–
d3.2_m3rr2rc	HO	D1indiv	0.025	–
d3.2_m3rr2rc	HO	indiv.mean	0.025	–
d3.2_m3rr2rc	HO	min1	0.036	–
d3.2_m3rr2rc	HO	complete	0.006	–
d3.2_m3rr2rc	HO	D2indiv	0.025	–
d3.2_m3rr2rc	HO	D3indiv	0.024	–
d3.2_m3rr2rc	HO	min2	0.020	–
d3.2_m3rr2rc	None	D1indiv	0.013	0.016
d3.2_m3rr2rc	None	indiv.mean	0.011	–
d3.2_m3rr2rc	None	D2indiv	0.014	–
d3.2_m3rr2rc	None	D3indiv	0.011	–

d_m	MTP	power_type	mean.b.sim	mean.b.pow
d3.3_m3rc2rc	BF	D1indiv	0.011	–
d3.3_m3rc2rc	BF	indiv.mean	0.011	–
d3.3_m3rc2rc	BF	min1	0.025	–
d3.3_m3rc2rc	BF	complete	0.014	–
d3.3_m3rc2rc	BF	D2indiv	0.011	–
d3.3_m3rc2rc	BF	D3indiv	0.012	–
d3.3_m3rc2rc	BF	min2	0.007	–
d3.3_m3rc2rc	BH	D1indiv	0.006	–
d3.3_m3rc2rc	BH	indiv.mean	0.005	–
d3.3_m3rc2rc	BH	min1	0.019	–
d3.3_m3rc2rc	BH	complete	0.013	–
d3.3_m3rc2rc	BH	D2indiv	0.007	–
d3.3_m3rc2rc	BH	D3indiv	0.005	–
d3.3_m3rc2rc	BH	min2	0.006	–
d3.3_m3rc2rc	HO	D1indiv	0.009	–
d3.3_m3rc2rc	HO	indiv.mean	0.009	–
d3.3_m3rc2rc	HO	min1	0.025	–
d3.3_m3rc2rc	HO	complete	0.013	–
d3.3_m3rc2rc	HO	D2indiv	0.010	–
d3.3_m3rc2rc	HO	D3indiv	0.008	–
d3.3_m3rc2rc	HO	min2	0.005	–
d3.3_m3rc2rc	None	D1indiv	0.007	0.011
d3.3_m3rc2rc	None	indiv.mean	0.006	–
d3.3_m3rc2rc	None	D2indiv	0.007	–
d3.3_m3rc2rc	None	D3indiv	0.007	–

Collapsed Summaries

d_m	mean.b.sim	max.b.sim	mean.b.pow
d2.1_m2fc	0.006	0.008	0.002
d2.1_m2ff	0.007	0.010	0.002
d2.1_m2fr	0.016	0.024	0.013
d2.2_m2rc	0.007	0.011	0.006
d3.1_m3rr2rr	0.008	0.013	0.006
d3.2_m3ff2rc	0.005	0.008	0.006
d3.2_m3rr2rc	0.019	0.036	0.016
d3.3_m3rc2rc	0.010	0.025	0.011

WY Summary

d_m	MTP	mean.b.sim	max.b.sim
d2.1_m2fc	WY-SD	0.003	0.004
d2.1_m2fc	WY-SS	0.004	0.005
d2.1_m2ff	WY-SD	0.031	0.046
d2.1_m2ff	WY-SS	0.022	0.033
d2.1_m2fr	WY-SD	0.020	0.035
d2.1_m2fr	WY-SS	0.025	0.051
d2.2_m2rc	WY-SD	0.006	0.021
d2.2_m2rc	WY-SS	0.011	0.023
d3.1_m3rr2rr	WY-SD	0.026	0.037
d3.1_m3rr2rr	WY-SS	0.040	0.056
d3.2_m3ff2rc	WY-SS	0.048	0.066
d3.2_m3rr2rc	WY-SS	0.077	0.110
d3.3_m3rc2rc	WY-SS	0.018	0.036

MDES summary

MTP	Adjusted MDES	D1indiv Power	Target MDES	d_m	S	M	MDES	numZero	J	K	n
BF	0.125	0.475	0.125	d2.1_m2fc	5000	3	0.125	0	20	1	
BH	0.124	0.557	0.125	d2.1_m2fc	5000	3	0.125	0	20	1	
HO	0.126	0.552	0.125	d2.1_m2fc	5000	3	0.125	0	20	1	
BF	0.125	0.473	0.125	d2.1_m2ff	5000	3	0.125	0	20	1	
BH	0.125	0.567	0.125	d2.1_m2ff	5000	3	0.125	0	20	1	
HO	0.126	0.555	0.125	d2.1_m2ff	5000	3	0.125	0	20	1	
BF	0.125	0.266	0.125	d2.1_m2fr	5000	3	0.125	0	20	1	
BH	0.125	0.351	0.125	d2.1_m2fr	5000	3	0.125	0	20	1	
HO	0.124	0.318	0.125	d2.1_m2fr	5000	3	0.125	0	20	1	
BF	0.125	0.164	0.125	d2.2_m2rc	5000	3	0.125	0	60	1	
BH	0.125	0.209	0.125	d2.2_m2rc	5000	3	0.125	0	60	1	
HO	0.121	0.183	0.125	d2.2_m2rc	5000	3	0.125	0	60	1	
BF	0.125	0.721	0.125	d3.1_m3rr2rr	5000	3	0.125	0	30	15	
BH	0.127	0.842	0.125	d3.1_m3rr2rr	5000	3	0.125	0	30	15	
HO	0.125	0.810	0.125	d3.1_m3rr2rr	5000	3	0.125	0	30	15	
BF	0.124	0.522	0.125	d3.2_m3ff2rc	5000	3	0.125	0	30	10	
BH	0.125	0.624	0.125	d3.2_m3ff2rc	5000	3	0.125	0	30	10	
HO	0.126	0.610	0.125	d3.2_m3ff2rc	5000	3	0.125	0	30	10	
BF	0.125	0.155	0.125	d3.2_m3rr2rc	5000	3	0.125	0	30	10	
BH	0.125	0.222	0.125	d3.2_m3rr2rc	5000	3	0.125	0	30	10	
HO	0.127	0.199	0.125	d3.2_m3rr2rc	5000	3	0.125	0	30	10	
BF	0.249	0.211	0.250	d3.3_m3rc2rc	5000	3	0.250	0	40	20	
BH	0.251	0.284	0.250	d3.3_m3rc2rc	5000	3	0.250	0	40	20	
HO	0.247	0.250	0.250	d3.3_m3rc2rc	5000	3	0.250	0	40	20	

d_m	mean.b.mdes
d2.1_m2fc	0.007
d2.1_m2ff	0.004
d2.1_m2fr	0.004
d2.2_m2rc	0.012
d3.1_m3rr2rr	0.005
d3.2_m3ff2rc	0.004
d3.2_m3rr2rc	0.006
d3.3_m3rc2rc	0.006