

【F2L四向双态手法】FR部 作者：张砷镓 2011.2.14

编号	槽位	公式	时间
A0		$(R \ U' \underline{U}' \ R' \ U) (R \ U' \underline{U}' \ R') (U \ y') (R' \ \underline{U}' \ R)$	1.0s
A1		$(R \ \underline{U}' \ R' \ \underline{U}' \ y) (L' \ U \ L)$	0.7s
		$(R \ U' \underline{U}' \ R' \ U \ d) (R' \ \underline{U}' \ R)$	0.9s
A2		$(R' \ F' \ R \ U) (R \ \underline{U}' \ R' \ F)$	0.6s
		$U (R' \ F \ R \ F' \ R \ U \ R')$	0.8s

B1



$(R \ U \ R' \ \underline{U}')^2 (R \ U \ R')$

0.7s



$\underline{U}' (R \ \underline{U}' \ R' \ U \ R \ \underline{U}' \ R' \ U \ R \ \underline{U}' \ R')$

0.8s

B2



$(R' \ F \ R \ F') (R \ \underline{U}' \ R')$

0.5s



$(R \ \underline{U}' \underline{U}' \ R' \ y') (R' \ \underline{U}' \ R)$

0.6s

C1



$(R \ \underline{U}' \ R' \ U) (R \ \underline{U}' \underline{U}' \ R' \ U) (R \ \underline{U}' \ R')$

0.7s

C2



$(R \ \underline{U}' \ R' \ \underline{U}') (R \ U \ R' \ \underline{U}') (R \ \underline{U}' \underline{U}' \ R')$

0.8s

D1



$(R \underline{U}' R' U d) (R' \underline{U}' R \underline{U}' R' U R)$

1.0s

D2



$(R \underline{U}' R' \underline{U}') (R \underline{U}' R' U y') (R' \underline{U}' R)$

0.8s

E1



$(R U' \underline{U}') (l \underline{U}' R' U l')$

0.7s



$U d (R' U R \underline{U}') (R' U R)$

0.7s

E2



$(R \underline{U}' R' U) (R \underline{U}' R')$

0.4s



$U2 (R \underline{U}' R' U) (R \underline{U}' R')$

0.6s

F1



$(R\ U\ R'\ \underline{U}')\ (R\ U\ R')$

0.5s



$\underline{U}'\underline{U}'\ (R\ U\ R'\ \underline{U}')\ (R\ U\ R')$

0.7s

F2



$y'\ (R'\ \underline{U}'\ R\ U\ R'\ \underline{U}'\ R)$

0.6s



$(R\ U'\ R'\ y')\ (R'\ U'\ R)$

0.5s

G1



$(R\ \underline{U}'\underline{U}'\ R'\ U)\ (R\ U\ R')$

0.7s



$(R\ U\ R')\ U2\ (R\ U\ R')$

0.6s

G2



$(R \underline{U}') (R' U^2) (R U' R')$

0.5s



$y' (R' U^2) (R \underline{U}' R' \underline{U}' R)$

0.7s

H1



$(F' \underline{U}' F \underline{U}') (R U R')$

0.7s



$U' (R' F R F') U^2 (R U R')$

0.9s

H2



$(R U R' U y') (R' \underline{U}' R)$

0.7s



$r (R' U R \underline{U}') r' (R \underline{U}' R')$

0.7s

I1



F (R' F R)

0.4s



I2 E' I' U I'

0.4s

I2



U R U' R'

0.2s



R U' U' R'

0.2s

J1



(R U') (R' U) (R U') (R' U2) (R U' R')

0.7s



(R U' U' R' U') (R U R' U') (R U R')

0.8s

J2



$(R \ U' \underline{U} \ R' \ U \ y') (R' \ \underline{U}' \ R)$

0.7s



$y' \ U' (R \ U' U') (R'2 \ U' \ R2 \ U' \ R')$

1.0s

K1



$(R \ \underline{U}') (R' \ U2 \ y') (R' \ \underline{U}' \ R)$

0.8s



$U2 (R \ \underline{U}') (R' \ U2 \ y') (R' \ \underline{U}' \ R)$

1.0s

K2



$(M' \ U) (L \ \underline{F}' \ L' \ \underline{U}') M$

0.7s



$(\underline{U}' \ I' \ U \ I \ \underline{F}') U (R \ U \ R')$

0.8s

L1



$(R \underline{U}' R' U) (R U R')$

0.5s



$U^2 (R \underline{U}' R' U) (R U R')$

0.8s

L2



$y' (R' U R U') (R' \underline{U}' R)$

0.7s



$U d (R' U R U') (R' \underline{U}' R)$

0.9s

M1



$(R U' R' U) (R U' U' R' U) (R U R')$

0.9s



$(R^2 U \underline{U}') (R' \underline{U}' R \underline{U}' R'^2)$

0.9s

M2



$(R \underline{U} R'^2 F R F') (R \underline{U}' R')$

0.8s



$F' (L' U L) (F R U R')$

0.8s

N1



$(R' F) (R F' R \underline{U}' R' U R \underline{U}' R')$

0.7s



$(R \underline{U}' \underline{U}' R' I') (U R U' R' U R U')$

0.9s

N2



$(R \underline{U}' \underline{U}') (R' \underline{U}' R U R')$

0.6s



$\underline{U}' \underline{U}' (R \underline{U}' \underline{U}') (R' \underline{U}' R U) R'$

0.9s

Q1



$y' (R' \underline{U}' R \underline{U'U'}) (R' U R)$

0.7s



$(r \underline{U}' R' U) (R U r')$

0.6s

Q2



$(R U R' \underline{U}') (R \underline{U'U}' R')$

0.6s



$y' (r' U) (R \underline{U}' R' \underline{U}') r$

0.8s

R1



$(R U R' U) (R U R')$

0.6s



$(U R \underline{U}' R' \underline{U}') (R U R')$

0.6s

R2



$(R \underline{U}' R' U y') (R' \underline{U}' R)$

0.6s



$y' (R' \underline{U}' R) \underline{U}' (R' \underline{U}' R)$

0.6s

S1



$F (\underline{U}' L' U^2 L \underline{U}') F$

0.8s



$d' (L' U^2 L \underline{U}' \underline{U}') (L' U L)$

1.0s

S2



$(R \underline{U}' \underline{U}') (R' U^2) (R \underline{U}' R')$

0.7s



$(R \underline{U}' R' U) (R' F R \underline{F}' R U R')$

0.9s

T1



$R U R'$

0.2s



$d2 (L U L')$

0.5s

T2



$y' (R' \underline{U}' R)$

0.4s



$U d (R' \underline{U}' R)$

0.6s

U1



$(R \underline{U}') (R'^2 F R F') (R \underline{U}' R')$

0.6s



$U d (R' U^2 R \underline{U}' R' U R)$

0.9s

U2



$(R \ U' \underline{U}' \ R') \ U \ (R \ \underline{U}' \ R')$

0.6s



$U^2 \ (R \ U' \underline{U}' \ R') \ U \ (R \ \underline{U}' \ R')$

0.8s

V1



$(R \ U \ R' \ U) \ (R \ \underline{U}' \ R')$

0.6s



$(R \ \underline{U}') \ (R' \ U^2) \ (R \ U \ R')$

0.7s

V2



$(R \ U \ R') \ y' \ (R' \ \underline{U}' \ R)$

0.6s



$U \ d \ (R' \ \underline{U}' \ R \ \underline{U}' \ R' \ U \ R)$

0.9s