

组会报告

敖冬

Fit to prompt D0 MC

	Apply my BDT	Apply xuao's BDT
μ	0.27 +/- 0.04	0.30 +/- 0.02
σ	0.48 +/- 0.02	0.45 +/- 0.01
ξ	-0.21 +/- 0.06	-0.17 +/- 0.02
ρ_1	-0.15 +/- 0.09	-0.05 +/- 0.02
ρ_2	-0.68 +/- 0.44	-0.62 +/- 0.17

Find problems in 3 bins

- Bin 3
- Bin3 的单独拟合可能成功，可能失败
- Bin3 成功时，bin1、3联合
- 有如下warning，无NOT POS-DEF问题

```
MINUIT WARNING IN MIGRAD 94285e-01 2.89709e-02 1.05229e-02 -1.9741
=====Negative diagonal element 659 in Error Matrix-02 7.4115
MINUIT WARNING IN MIGRAD 29939e+00 8.35559e-01 8.86807e-03 7.7891
=====1.000275 added to diagonal 40 of error matrix 5e-02 8.5322
MIGRAD FAILS TO FIND IMPROVEMENT ERR DEF= 0.5
MIGRAD TERMINATED WITHOUT CONVERGENCE.
```

- Bin3 失败时，出现该warning，无NOT POS-DEF问题
- 此时bin1、3联合会NOT POS-DEF

- Bin7 有function value is NAN的问题，看能否通过初值和范围的设定解决，也可能有分布奇怪的数据点。
- Bin9 无function value is NAN信息，最终ERR MATRIX NOT POS-DEF

```
MINUIT WARNING IN MIGRAD
===== Negative diagonal element 7 in Error Matrix
MINUIT WARNING IN MIGRAD
===== Negative diagonal element 11 in Error Matrix
MINUIT WARNING IN MIGRAD
===== Negative diagonal element 12 in Error Matrix
MINUIT WARNING IN MIGRAD
===== Negative diagonal element 13 in Error Matrix
MINUIT WARNING IN MIGRAD
===== 1.01976 added to diagonal of error matrix
MIGRAD FAILS TO FIND IMPROVEMENT
MACHINE ACCURACY LIMITS FURTHER IMPROVEMENT.
MIGRAD MINIMIZATION HAS CONVERGED.
MIGRAD WILL VERIFY CONVERGENCE AND ERROR MATRIX.
```

- 其余各个bin的联合拟合可以收敛，无NOT POS DEF的问题，但加入的bin越多，越难得到较小的EDM