Update: SIMBA in python

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Contents

1 What I did

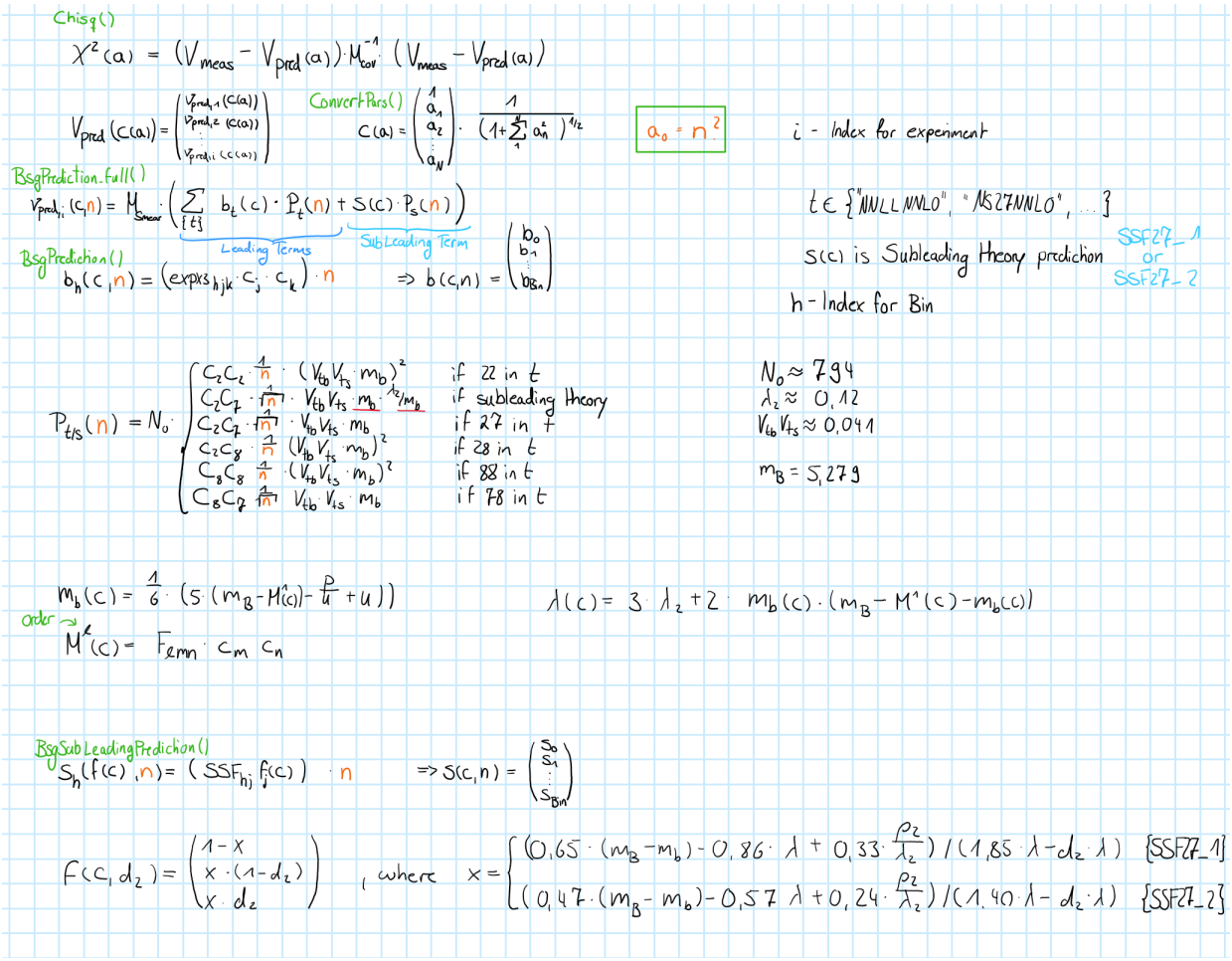

Figure 1: Equations according to my python code

A problem could be the d_2. In my code it's constantly zero. I got this information from the *fit.config* file.

```
##########################################################
#  Subleading theory coefficients
##########################################################

## Default value is
SSF27_1055.d2: 0.
SSF27_2055.d2: 0.
```

Figure 2: Information in *fit.config* file

2 Comparisons

As you can see in the following, something is off with the subleading theory. To compare different fits, I always plotted the Fit with the subleading prediction added on the leading prediction and with just the leading prediction. For the fitting I used 4 to 7 start parameters, which gave different results for the prediction, as it is shown in the columns. Every pair of rows has more amount of measurements included in the fit (*["babar_incl",*

"babar_hadtag", "babar_sem", "belle"]).
The **red dots** show my calculated prediction.
The **black dots** show the experimental values, which I extracted from the root files.
The **green line** shows the fit I extracted from the root files.
The **blue line** shows the difference between the green line and the red dots.

2.1 Babar hadronic tag

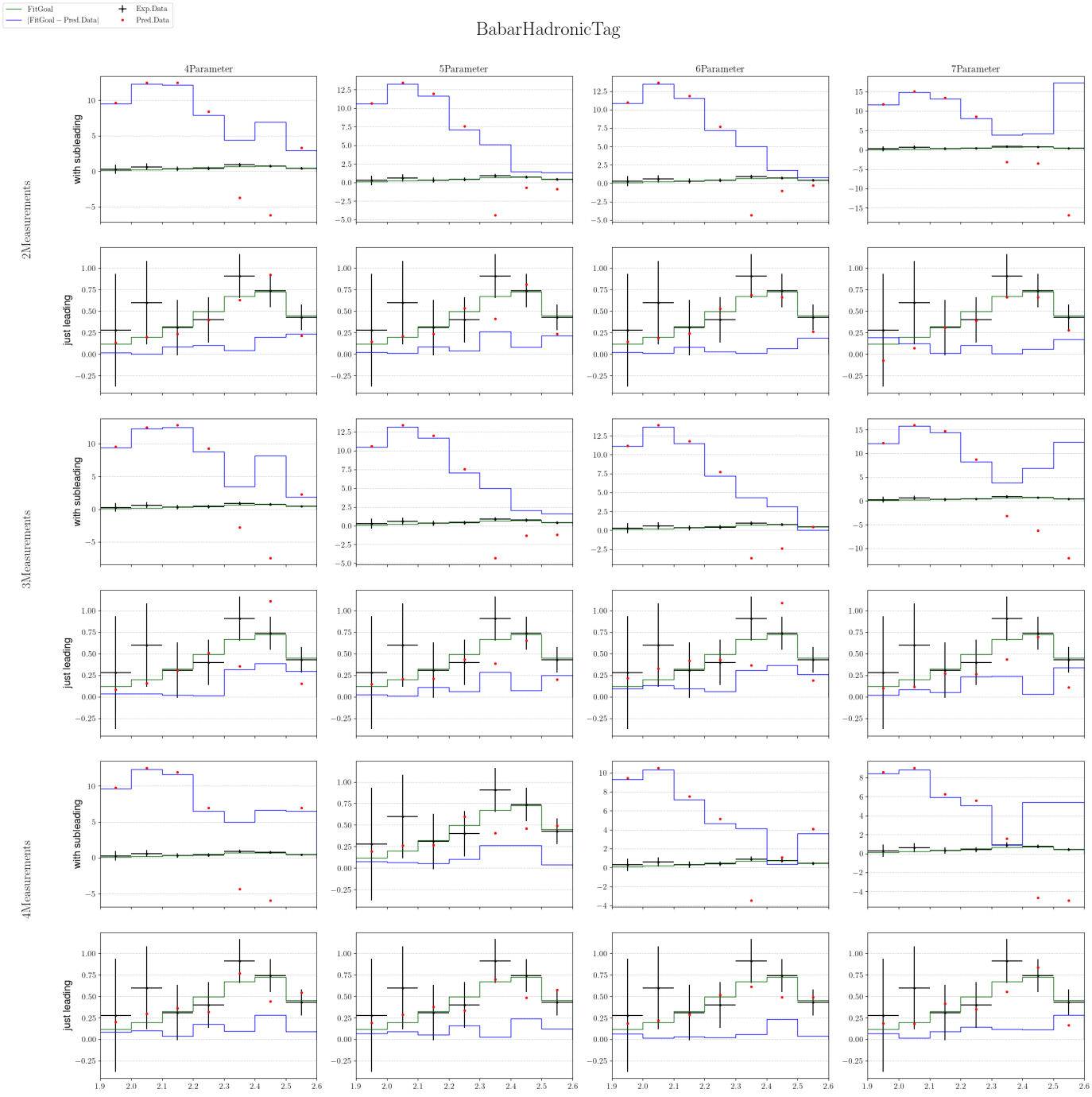

Figure 3: Fit Comparison for 'babar_hadtag'

2.2 Babar inclusive spectra

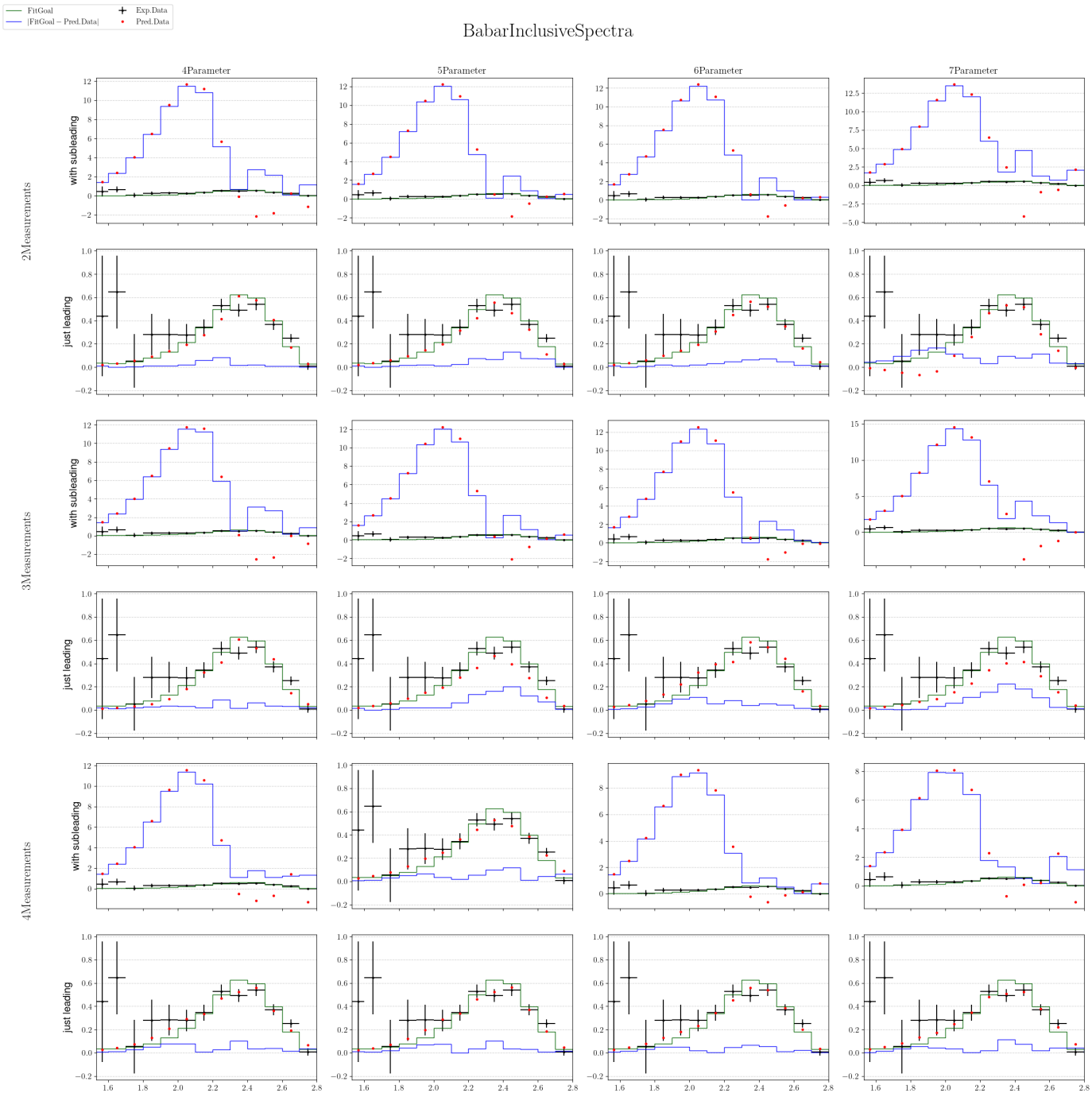

Figure 4: Fit Comparison for 'babar_incl'

2.3 Babar semileptonic

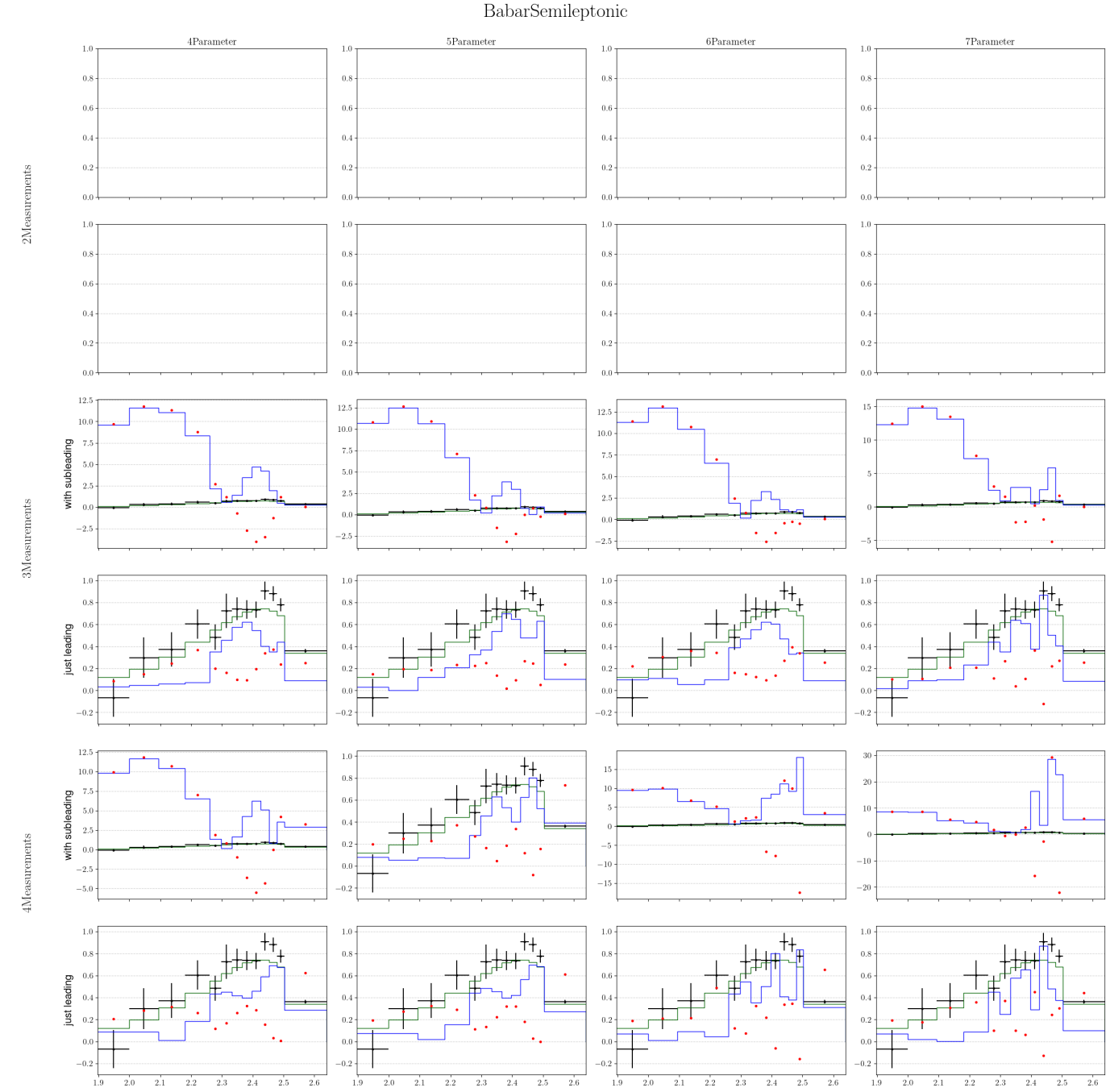

Figure 5: Fit Comparison for 'babar_sem'

2.4 Belle

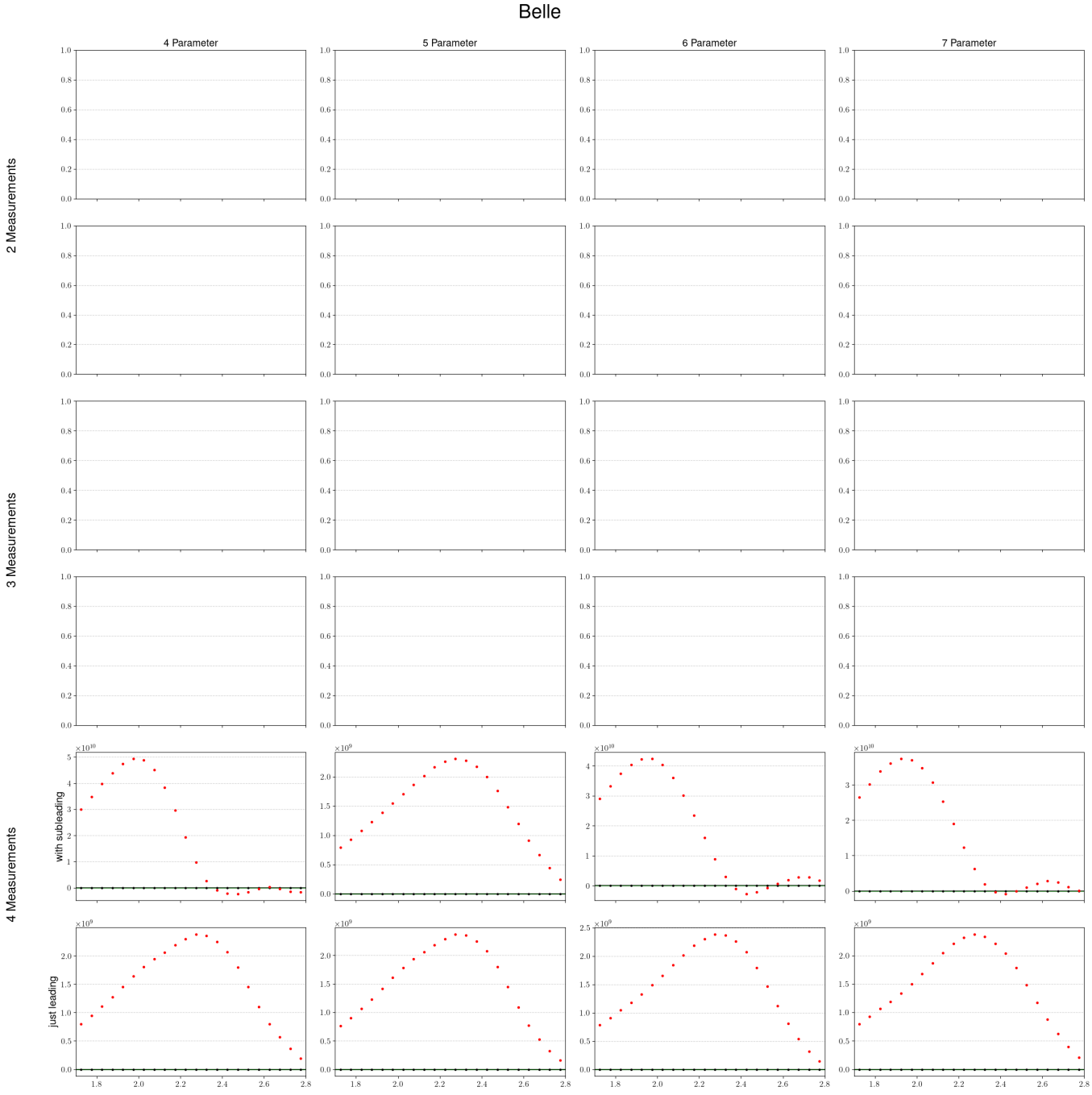

Figure 6: Fit Comparison for 'belle'